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ANNUAL REPORT OF FIELD PLANTINGS IN MINNESOTA

1986



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United States Department of Agriculture
Soil Conservation Service

1986 Report of
Plant Materials Field Plantings
in
Minnesota

by

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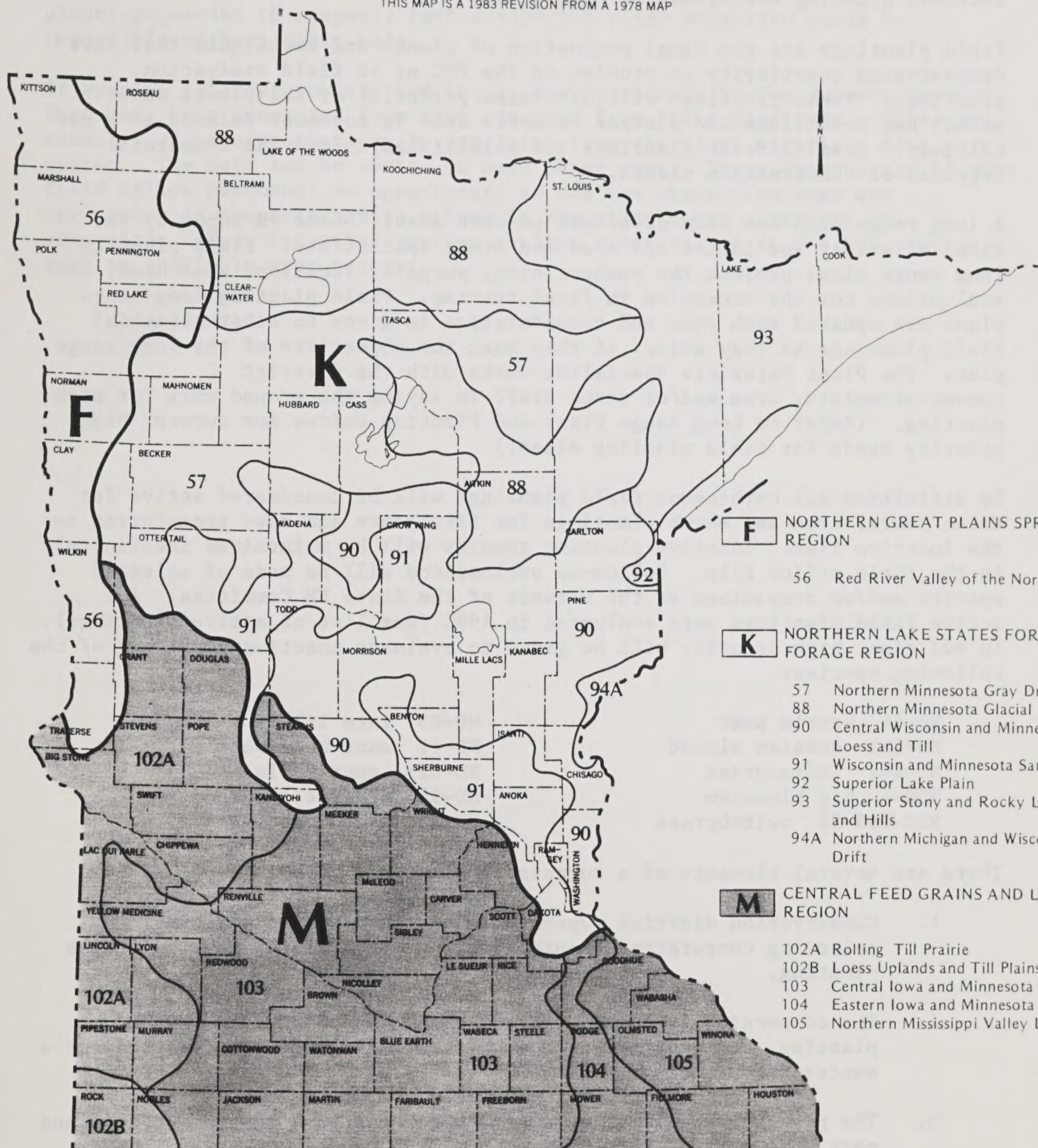
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LAND RESOURCE REGIONS and MAJOR LAND RESOURCE AREAS of MINNESOTA

THIS MAP IS A 1983 REVISION FROM A 1978 MAP



SCALE IN MILES

This report is prepared to summarize the plant materials field and seed increase planting activities in Minnesota.

Field plantings are the final evaluation of plants and techniques that have demonstrated superiority in studies at the PMC or in field evaluation plantings. These plantings will determine potential of the plants under actual use conditions and provide valuable data to document release as a new cultivar. Seed increase plantings are established to provide commercial supplies of conservation plants.

A long range plan has been developed on each plant, based on input by the Plant Materials Specialist and area and state specialists. Field planting long range plans project the number, size, purpose, location, seed need, and evaluations for the accession in final testing. Field planting long range plans are updated each year and consideration is given to other potential field plantings as they arise, if they meet the objectives of the long range plan. The Plant Materials Specialist works with the district conservationists, area and/or state staff in laying the ground work for each planting. (Refer to Long Range Plans and Planting Guides for current high priority needs for field planting sites.)

By definition all herbaceous field plantings will be considered active for three years; tree and shrub plantings for five years and then transferred to the inactive list. Inactive planting records will be maintained indefinitely in the field office file. Follow-up evaluations will be made of selected species and/or accessions at the request of the State PM Committee. All active field plantings were evaluated in 1986 (see list of active plantings). In addition, high priority will be given to evaluate inactive plantings of the following species:

ND-14	harbin pear	ND-83	late lilac
ND-283	Russian almond	ND-11	amur honeysuckle
ND-444	indiangrass	ND-629	amur maple
NDG-4	big bluestem	ND-95	prairie sandreed
NDG-965-98	switchgrass	ND-93	green needlegrass

There are several elements of a successful planting:

1. Conservation district supervisors are involved in planning, selecting cooperators, monitoring, and publicizing results of the planting.
2. The cooperator is fully informed about the objectives of the planting, and understands the culture and management required for a successful planting.
3. The planting should be of a size which can be a management unit and part of a planned RMS.
4. The planting fits with district objectives and field office goals.
5. SCS technicians or specialists provide the systematic follow-up in the establishment, maintenance, and evaluation of the planting.

Cooperation from area and field office personnel has been excellent. Establishment, management, and evaluation of the type and number of field plantings needed to properly test a superior plant selection would be impossible without their help.

Of special interest in this and future reports should be the summary reports that have been generated from data received from field plantings. These are examples of reports that can be generated from the plant materials data base system. The data can be sorted in many other ways. These reports should give field office personnel an opportunity to see how their plantings are performing in comparison with others in the state under a variety of situations. Data for other species or from other states in the PMC service area is available upon request.

HIGHLIGHTS OF ACTIVITIES AT THE BISMARCK PLANT MATERIALS CENTER

The USDA Plant Materials Center, Bismarck, North Dakota primarily serves the states of North Dakota, South Dakota and Minnesota. Activities are directed toward meeting the needs and priorities set forth in the 3 states long-range programs.

The objectives and functions of the Plant Materials Center are to:

1. Identify, select and improve plants to meet the resource conservation needs of the three states.
2. Determine cultural techniques for successful propagation and establishment of these plants.
3. Assemble and comparatively evaluate materials on and off the center.
4. Make comparative field plantings for final testing of promising plants and techniques with Conservation Districts and cooperators.
5. Work with Universities, Experiment Stations, and other State and Federal Agencies to cooperatively release improved conservation plants.
6. Produce limited quantities of foundation or foundation quality seed. This seed is made available to Conservation Districts, State Seed certifying organizations, commercial seed growers, or other agencies for establishing seed increase fields or seed orchards.
7. Encourage Conservation Districts, commercial seed growers, and commercial and state nurseries to produce adapted plant materials and named cultivars.

TREE AND SHRUB IMPROVEMENT

Within the three states, there is a need to improve the quality and quantity of species available for field and farmstead windbreaks, erosion control on cropland and critical areas, surface mine reclamation, recreational areas, wildlife habitat, and barrier plantings. The objective of the woody improvement program is to assemble, evaluate, increase and release cultivars with improved survival, growth rates, form, winter hardiness, fruit production, disease resistance or other valuable characteristics. Most projects are cooperative with various state, local and federal agencies, tree improvement foresters, scientists, and others with similar objectives.

Field Evaluation Plantings (multi-species).

The SCS has entered in memorandums or agreements with soil conservation districts, state universities and other state and federal agencies at thirteen locations in North Dakota, South Dakota and Minnesota to provide cooperative field evaluation planting sites with long term land tenure for testing of woody plant materials. These agreements provide sites for initial evaluation of species and cultivars under diverse soil and climatic conditions. They represent major land resource areas and key windbreak suitability groups. Initial evaluations are recorded on individual spaced plants or rows under uniform culture and management conditions.

Project 38I302K - North Dakota Game and Fish Department, McKenzie Slough Game Management Area, McKenzie, North Dakota. Soil series- texture: Savage silty clay loam, MLRA: 053B, WSG: 3; 338 accessions of 126 species.

Project 38I305K - Herman Brothers Farm, Brinsmade, North Dakota. Soil series-texture: Svea-Buse loam, MLRA: 055A, WSG: 1, 8; 153 accessions of 59 species.

Project 38I308K - North Dakota State University, Bottineau Branch, Bottineau, North Dakota. Soil series-texture: Barnes-Aastad Complex, MLRA: 055A, WSG: 3; 130 accessions of 57 species.

Project 38I316K - North Dakota State University, Dickinson, Branch Experiment Station, Dickinson, North Dakota. Soil series-texture: Parshall fine sandy loam, MLRA: 054, WSG: 5; 61 accessions of 35 species.

Project 38I321K - North Dakota State University, Williston Branch Experiment Station, Williston, North Dakota. Soil series-texture: Williams loam, MLRA: 053A, WSG: 3; 28 accessions of 19 species.

Project 38I323K - Morton County Parks, Sweet Briar Recreation Area, Mandan, North Dakota. Soil series-texture: Stady loam, MLRA: 054, WSG: 6; 79 accessions of 63 species.

Project 38I314K - USDI, Fish and Wildlife Service, National Wildlife Refuge, Lake Andes, South Dakota. Soil series-texture: Highmore silt loam, MLRA: 055C, WSG: 3; 84 accessions of 45 species.

Project 38I319K - U.S. Forest Service, Buffalo Gap National Grassland, Cottonwood, South Dakota. Soil series-texture: Kyle silty clay, MLRA: 060A, WSG: 4; 67 accessions of 46 species.

Project 38I315K - South Dakota State University Central Research Station, Highmore, South Dakota. Soil series-texture: Williams silt loam, MLRA: 053C, WSG: 3; 118 accessions of 56 species.

Project 38I318K - University of Minnesota, West Central Experiment Station, Morris, Minnesota. Soil series-texture: Barnes-Buse loam, MLRA: 102A, WSG: 3, 8; 89 accessions of 52 species.

Project 38I320K - University of Minnesota, Northwest Experiment Station, Crookston, Minnesota. Soil series-texture: Bearden silty clay loam, MLRA: 056, WSG: 1; 56 accessions of 38 species.

Project 38I325K - University of Minnesota, Westport, Minnesota, Center Pivot Irrigation System. Soil series-texture: Esterville sandy loam, MLRA: 91, WSG: 7; 21 accessions of 18 species.

Project 38I340K - Minnesota Department of Natural Resources, Rochester, Minnesota. Soil series-texture: Mt. Carroll silt loam, MLRA: 105; 79 accessions of 33 species are planned for establishment.

Current Status: Assembly and evaluation continues for each project. The following accessions show potential for further evaluation and release:

<u>Accession Number</u>	<u>Genus/species</u>	<u>Origin/source</u>
ND-654 5652T	silver maple <u>Acer saccharinum</u>	Pembina Co., ND
SD-13 5888T	green ash <u>Fraxinus pennsylvanica</u>	Potter Co., SD
SD-156 5890T	green ash <u>Fraxinus pennsylvanica</u>	Deuel Co., SD
ND-647 5887T	black ash <u>Fraxinus nigra</u>	Res. Sta., Morden, MB, Canada
ND-630 6096T	bur oak <u>Quercus macrocarpa</u>	Barnes Co., ND
Mich-768 12606T	horizontal juniper <u>Juniperus horizontalis</u>	USDA-SCS, PMC, East Lansing, MI
ND-25 5741T	downy hawthorn <u>Crataegus mollis</u>	NDSU, Fargo, ND
PI-370126	willow <u>Salix</u> sp.	Plant Introduction Sta., Ames, IA
ND-21 34900T	nannyberry <u>Viburnum lentago</u>	USDA, ARS, Mandan, ND
SD-131 6073T	mayday <u>Prunus padus</u>	Moody Co., SD
ND-1029 6086T	chokecherry (yellow fruit) <u>Prunus virginiana</u>	Logan Co., ND
ND-3905 35215T	dwarf artic willow <u>Salix purpurea nana</u>	NDSU, Fargo, ND
ND-3904 35214T	blue fountain willow <u>Salix</u> sp.	NDSU, Fargo, ND
ND-3745 19584T	forsythia <u>Forsythia europea x. ovata</u>	P.I. Sta., Ames, IA
ND-428 5970T	black walnut <u>Juglans nigra</u>	NDSU, Fargo, ND
ND-450 6119T	Redman elderberry <u>Sambucus racemosa</u>	USDA, ARS, Cheyenne, WY

<u>Accession Number</u>	<u>Genus/species</u>	<u>Origin/source</u>
ND-500 5977T	Siberian larch <u>Larix sibirica</u>	Res. Sta., Morden, MB Canada
ND-673 6214T	mountain ash <u>Sorbus aucuparia</u>	Res. Sta., Morden, MB, Canada
PI-323957	black chokeberry <u>Aronia melanocarpa</u>	P.I. Sta., Ames, IA
ND-1134 47203T	hardy plum <u>Prunus sp.</u>	W. Hermann, Miller, SD
ND-3779 29137T	Manchurian poplar <u>Populus sp.</u>	Lee Nursery, Fertile, MN
'Darts Golden' 19601T	dwarf ninebark <u>Physocarpus opulifolius</u>	P.I. Sta., Ames, IA
ND-3744 19577T	Korean barberry <u>Berberis sp.</u>	NDSU, Fargo, ND

Tree and Shrub Seed Source Studies and Assemblies. These studies involve (1) a search for superior trees and shrubs in natural stands, shelterbelts and plantings of known origin; (2) initial evaluation in test plantations on sites selected to represent major land resource areas or seed zones; (3) selection and increase of superior plants (seed increase crossing blocks); (4) advanced studies to determine cultural methods; and (5) final testing in field plantings to further evaluate performance and area of adaptation.

Project 38I015J - Evaluation of chokecherry, (Prunus virginiana). In 1979, SCS field office personnel were instrumental in locating stands and collecting a total of 179 accessions from North Dakota, South Dakota and Minnesota. Without their concerted effort and cooperation such large scale assemblies would not be possible. Seedlings grown at the PMC were transplanted in the spring of 1983 into test plantations near Bismarck and Pierre. Experimental design is a randomized block with some blocks incomplete. Accessions are replicated 5 times with 4 trees per replication. Survival at the North Dakota site was 95% in 1985. One hundred fifty of the original 179 accessions were established. Survival totaled 61% at the South Dakota planting in 1984. In North Dakota, chokecherry growth rates ranged from 33 to 71 cm/year. Heights reached up to 290 cm (9.5 feet) in 1986. Both tree-like and dense suckering forms are apparent. Differences in size and growth rates based on north-south latitudinal origin are not yet visible at this early age. Plans are to innoculate the South Dakota plantation with western-X disease in order to screen the population for resistance to this serious pathogen. Dr. Glenn Peterson, Plant Pathologist, USDA Forest Service, Lincoln, NE, will conduct the innoculation. Survival, vigor, plant height, and crown width were recorded in 1986.

Project 38I012J - Evaluation of silver buffaloberry, (Shepherdia argentea). SCS field personnel collected 134 accessions in North Dakota and South Dakota in 1977-79. Four additional accession were obtained from the Canada Agriculture Research Station, Morden, Manitoba. Seedlings grown at the PMC were transplanted into test plantations near Bismarck and Pierre in the spring of 1983. Experimental design is the same as the chokecherry project. The South Dakota planting has been discontinued because of poor survival. Survival at the North Dakota site was 85% in 1985. Out of the original assembly, 101 accessions are represented. Growth rates averaged 17 to 54 cm/year. Several accessions have exceeded heights of 250 cm (8 feet) in 1986. Survival, vigor, plant height, and crown width were recorded in 1986.

Project 38I013J - Evaluation of hawthorn, (Crateagus sp). SCS field personnel collected seed from 139 accessions in North Dakota and South Dakota in 1976-79. An additional 45 collections of introduced species were obtained from the Canada Agriculture Research Station, Morden, Manitoba. Seedlings were transplanted into test plantations near Bismarck and Pierre in 1983. Experimental design is the same as the chokecherry and buffaloberry projects. From the original assembly, 75 native and 31 introduced accessions were established. Survival at the North Dakota site was 98% in 1985. Unfortunately, because of poor survival the South Dakota planting has been discontinued. Despite moderate deer browse, growth rates in North Dakota averaged 15 cm/year, ranging from 0 to 23. Some accessions have exceeded a height of 125 cm (4.0 feet) in 1986. Introduced species are generally more vigorous at this early stage. Survival, vigor, plant height, crown width, and disease and insect resistance were recorded in 1986.

Project 38I333K - Evaluation of hackberry, (Celtis occidentalis).
GP-13 Technical Committee Cooperative Provenance Test.

Dr. Richard A. Cunningham, Study Coordinator, USDA-ARS, Mandan, ND.

Objectives of the study:

1. Identify the extent and patterns of genetic variability within hackberry growing in ND, SD, MN, NE, IA, MO, KS, OK, AR and Manitoba, Canada.
2. To identify the seed sources of hackberry best adapted for planting in ND, SD, MN, NE, IA, MO, KS, OK, and AR.
3. To provide a highly variable gene pool that could be utilized for future selections and breeding.

Current Status: The assembly of seed sources is now complete. A total of 293 (4 in 1979, 58 in 1982, 86 in 1983, 98 in 1984, 47 in 1985) field collections were processed at the USDA-SCS, PMC, Bismarck, North Dakota. Clean seed amounts range from 8 to 3,439 grams. The PMC greatly appreciates the positive response and excellent cooperation from most states and SCS personnel assisting with the collections. Only a small number of zones in the study area were inadequately sampled or not collected. Seed lots from fifty of the 55 designated zones encompassing 9 states and the Province of Manitoba, Canada were received.

North Dakota	23 Collections - (2-1979, 14-1982, 0-1983, 0-1984, 7-1985)
South Dakota	39 Collections - (2-1979, 6-1982, 4-1983, 15-1984, 12-1985)
Minnesota	29 Collections - (9-1982, 11-1983, 0-1984, 9-1985)
Nebraska	69 Collections - (14-1982, 31-1983, 16-1984, 8-1985)
Kansas	56 Collections - (11-1982, 17-1983, 24-1984, 4-1985)
Oklahoma	19 Collections - (3-1982, 4-1983, 11-1984, 1-1985)
Iowa	29 Collections - (0-1982, 19-1983, 9-1984, 1-1985)
Missouri	24 Collections - (0-1982, 0-1983, 23-1984, 1-1985)
Arkansas	4 Collections - (4-1985)
Canada	1 Collection - (1-1982)

A total of 219 accessions (4 replications each) were planted at the USDA-SCS PMC, Manhattan, Kansas in November, 1986. One year old bareroot seedlings will be raised and shipped to cooperating researchers for establishment in 17 or more test plantations in the central and northern plains. According to germination tests conducted by the ARS, potential production is 193,000 seedlings.

Selection and increase of superior plants (seed orchards)

Project 38S317K USDI, Fish and Wildlife Service, Apple Creek Township, Burleigh County, North Dakota.

Current status: Forty to fifty plants of each of the following accessions have been established in a spaced plant isolated seed orchard. Seed harvested from this orchard will be provided to nurseries when varieties have been released for commercial production.

'Cardan'	green ash
(469226)	<u>Fraxinus pennsylvanica</u>
'Midwest'	Manchurian crabapple
(478000)	<u>Malus baccata mandshurica</u>
'Big Horn'	skunkbush sumac
(483445)	<u>Rhus trilobata</u>
'Oahe'	hackberry
(476982)	<u>Celtis occidentalis</u>
ND-14	Harbin pear
(478004)	<u>Pyrus ussuriensis</u>

ND-313 red tatarian honeysuckle
(477999) Lonicera tatarica sibirica

ND-629 amur maple
(477992) Acer ginnala

'Sakakawea' silver buffaloberry
(478005) Shepherdia argentea

'Scarlet' Mongolian cherry
(478003) Prunus fruticosa

SD-131 Mayday
(6073T) Prunus padus

ND-177 cotoneaster
(5729T) Cotoneaster integerrima

ND-1134 hardy plum
(47203T) Prunus sp.

Final Evaluation and Release Schedule - Woody:

<u>Accession No.</u>	<u>Species</u>	<u>Projected Year of Release</u>
ND-177	European cotoneaster	1986-87
PI-113095	<u>Cotoneaster integerrima</u>	
ND-11	amur honeysuckle	1987-88
PI-477998	<u>Lonicera maackii</u>	
ND-20	Arnold hawthorn	1988-89
5731T	<u>Crataegus arnoldiana</u>	
ND-629	amur maple	1988-89
PI-477992	<u>Acer ginnala</u>	
ND-1879	honeylocust	1989-90
11850T	<u>Gleditsia triacanthos</u>	
ND-83	late lilac	1989-90
6228T	<u>Syringa villosa</u>	
ND-283	Russian almond	1989-90
6079T	<u>Prunus tenella</u>	
ND-14	harbin pear	1988-89
PI-478004	<u>Pyrus ussuriensis</u>	

GRASS IMPROVEMENT

Native grasses and closely related introduced species are needed for critical area stabilization, erosion control, wildlife habitat, pasture and hayland, rangeland and surface mine revegetation. Adapted cultivars are still needed for many warm and cool season species in the 3 state area. Emphasis of the PMC selection program is placed on erosion control, improving forage quantity and quality, identifying adapted, winter hardy seed sources capable of maintaining high stand density, and increasing seed production and disease resistance. The PMC also cooperates on projects with research agencies such as ARS who employ plant breeders to improve the quality of forages available in the Northern Plains. In addition, evaluations are conducted off center by the PMC in cooperation with state and federal land management agencies.

Field Evaluation Plantings (multi-species): The objective is to determine the adaptation and performance of selected species and varieties of warm season native grasses to be evaluated under uniform culture and management.

Project 38A327J USDI-FWS, Fergus Falls, Minnesota. Thirty-three accessions of warm season species, established in June 1982. The planting plan is a randomized complete block with 3 replications, and an array for demonstrational purposes. Stands-excellent. Data collected included plant density, plant height, weed competition and stand rating. Forage yield was sampled in 1983-1986. Annual production was down in 1985 and 1986, although moisture conditions were good. Soil samples were collected to check fertility levels. Very obvious differences in maturity were noted between the northern and southern sources of each species.

Project 38A328J USDI-FWS, J. Clark Salyer NWR, Upham, North Dakota. Thirty-three accessions of warm season species, established in June 1982. The planting plan is the same as Fergus Falls (see above). Stands-excellent. Data collected included plant density, winter injury, plant height, weed competition and stand rating. Forage yield was sampled in 1983-1986. Forage production has been excellent, especially for the northern cultivars. Winter injury was noted in southern sources of big bluestem, indiangrass, and little bluestem. Southern sources of switchgrass did not seem as affected by winter injury as the other species but delayed maturity was apparent.

Project 38A334J USDI-FWS, Lake Andes, South Dakota. Thirty-two accessions of warm season species, established in June 1983. The planting plan is a randomized complete block with three replications, plus a demonstration array. Stands-good to excellent. During 1983, stand ratings were the only evaluations conducted. Plant density, phenology and forage yield were collected in 1984-1986. Northern sources were generally low in production. Maturity differences were again readily apparent. The plots were burned in 1986. Some of the more southern sources had excellent forage production in 1986. 'Holt', 'Oto', and 'Osage' indiangrass produced 5 ton/acre of oven dry forage. 'Summer' switchgrass was also in that range.

Project 38A337X US Army Corps of Engineers, Ft. Pierre, South Dakota. Thirty-three accessions of warm season species were established May 27-30, 1986. The planting plan is a randomized completed block with three replications, plus a demonstration array. Stand establishment was good-excellent. Data collected in 1986 included stand density, stand rating, plant height, weed competition, and stand emergence. Stand density estimates ranged from 2 to 34 plants/ft². The stands looked good going into winter; however, severe surface cracks on the Promise clay soil may cause some plant loss.

Project 38A336X Sully County, South Dakota. Thirty-two accessions of warm season grasses were established in randomized blocks seeded May 23-24, 1984. First year stands were fair-excellent. Density ratings ranged from 7 to 29 plants/sq. ft. Data collected included density, stand rating, plant height, and weed competition. Annual forage production and phenology were documented in 1985. Moisture conditions were poor in 1985 and forage production was low. Most northern sources were rated poor in performance. Improved moisture conditions in 1986 resulted in excellent production. Some of the switchgrass entries produced more than 4 ton/ac of oven dry forage.

Project 38A335X Minnesota Dept. of Natural Resources, Rochester, Minnesota. Thirty-seven accessions of warm season grass were established in randomized blocks seeded June 4-6, 1985. Eastern gamagrass and caucasian bluestem were also included in the evaluation. Density ratings, plant height and weed contamination were documented August 20-21, 1985. Stands were rated fair to excellent. Weed competition was heavy on some plots. Data collected in 1986 included stand index, height, and weed competition. Density estimates ranged from 2 to 24 plants/ft². Forage production will be sampled in 1987.

Major Assemblies of Native Grasses. Since 1977 the PMC has conducted four large scale assemblies of native grasses with the assistance of SCS field office personnel. These individuals located natural (native) stands then collected and shipped the vegetative subsamples. Nursery maintenance and evaluation work will be or has been performed by PMC personnel for 2 projects (little bluestem and big bluestem), while 2 others (western wheatgrass and blue grama) are handled by ARS plant breeders.

Project 38I338G. Assembly and evaluation of big bluestem, (Andropogon gerardii).

Objective: Assemble, evaluate, develop, and release cooperatively and adapted variety and/or varieties of big bluestem for conservation use in the following MLRA's: 56, 57, 88, 90, 91, 93, 102A, 102B, 103, 104, and 105.

Collection: October 15-18, 1985

Transplant Date: May 27 - June 13, 1986

Status: A total of 326 accessions were collected in Minnesota and eastern South Dakota. Individual plantlets were separated, transplanted into containers, and grown in the PMC greenhouse from March to May, 1986. More than 4,000 individual plants were transplanted to an initial evaluation nursery at the ARS Station at Mandan, ND. Survival was excellent. The nursery will be irrigated in 1987 to simulate the higher rainfall conditions where the plants originated. Data collected in 1987 will include survival, vigor, disease, plant size, and leafiness.

Project 38I010H Evaluation of western wheatgrass, Agropyron smithii

Project 38I011H Evaluation of blue grama, Bouteloua gracilis

Cooperators: The USDA, Soil Conservation Service (SCS), Plant Materials Center, Bismarck, ND, in cooperation with USDA-Agricultural Research Service (ARS), Northern Great Plains Research Center, Mandan, ND, and the Office of Surface Mines (OSM). Dr. Reed Barker, Plant Geneticist, is study coordinator.

Assembly: The initial phase involved the assembly and planting of vegetative field collections of western wheatgrass and blue grama from the western and Northern Great Plains Land Resource Areas 53, 54, 58, 60, 61, and 63 in North and South Dakota.

Current status: The assemblies of western wheatgrass and blue grama were completed during 1977. The projects were designed to systematically sample the ecotypic variation that occurs in these two species in western North and South Dakota. A total of 10,350 vegetative samples were collected by the SCS during September 1977. Five samples of each species were collected on 549 sites in South Dakota and on 486 sites in North Dakota.

Western wheatgrass

Initial evaluation notes were recorded by USDA-ARS on all plants in 1979. One thousand plants of western wheatgrass were selected for further evaluation and were transplanted to an advanced evaluation nursery in 1980. No data was recorded in 1981. In 1982 data collection on the selected plants included length of spread, density of spread and coloration. In 1983 a further 20% selection was made and seed collected from these plants will be planted in the greenhouse and evaluated for seedling vigor. Four hundred superior plants times 5 replications for a 2,000 total of plants were established vegetatively in the spring of 1984. This was the third cycle of recurrent selection used to identify superior plants. In 1985, data was collected from this third generation on the same agronomic traits recorded during earlier generations. Seed from the third cycle selection will be made available for testing in 1987.

Blue grama

Initial evaluations have been made on the assembly in 1981-82 and inflorescences from selected plants were collected for further study of apomixis. ARS personnel are developing a technique to determine degree of apomixis. No further progress has been reported by ARS in 1984. The PMC assisted with maintenance of the nursery in 1984 and 1985. In 1985, an initial selection of superior plants (top 10%) was made by Dr. Reed Barker (USDA-ARS). Vegetative plugs were removed with the assistance of the PMC. ARS personnel transplanted this material into cone-tainers in the greenhouse for outplanting in 1986.

Selection and Initial Seed Increase

Project 38I016H Initial increase of little bluestem Schizachyrium scoparium.

Cooperators: The USDA, Soil Conservation Service (SCS), Plant Materials Center, Bismarck, ND, in cooperation with the Office of Surface Mining (OSM).

Assembly: The initial phase involved the assembly and processing of vegetative field collections of little bluestem representative of the following Major Land Resource Areas in North Dakota, South Dakota and Minnesota: 53B, 53C, 54, 55A, 55B, 55C, 56, 57, 58C, 58D, 60, 61, 62, 63, 64, 66, 90, 91, 102A, 102B, 103, 104 and 105.

Current Status: Many of you in the field and area offices were involved in the initial assembly of little bluestem in ND, SD, and MN in 1979. The project has progressed well on schedule. More than 7,000 individual plants were evaluated from 1980-83. Superior plants were selected in 1983 and transplanted into isolated crossing blocks in June 1984. Plants were selected based on vigor, leafiness, disease resistance, plant size, and maturity. Because of the ecotypic variation and maturity differences, the selected plants were placed into 4 groups closely associated with the divisions in Major Land Resource Areas. These 4 regions are: 1. eastern North Dakota and north Central South Dakota, (ND-4114, a composite of 58 plants), 2. Western Dakotas (ND-4115, 68 plants), 3. eastern South Dakota and southern Minnesota (ND-4116, 76 plants), and 4. central and northeast Minnesota (ND-4117, 14 plants). Four separate germplasm blocks have been established. In 1985 a 5th group of short, early maturing plants were selected and established in an isolated crossing block. This composite will be tested for use as low maintenance cover in recreational area developments, transportation corridors and critical areas. Also in 1985, with the assistance of Dr. Jim Karns, Research Animal Scientist, USDA-ARS, Mandan, ND, 14 out of the total 68 plants from group 2 were sub-selected on the basis of higher protein content and digestability. These individuals (Group 6) will be increased and established in another crossing block in 1987.

Besides little bluestem, the following grasses were selected in 1984 and are now being increased in small breeder blocks or initial increase fields:

Project 38A111S - Initial seed increase of ND-3743 switchgrass. Established at the USDA-ARS Station, Mandan in 1982. Tall leafy, accession, maturing earlier than NDG-965-98. Collected by D. Strum, U.S. Fish and Wildlife Service, in 1980. Collected from a field of Nebraska-28 switchgrass.

Project 38A113S - Initial seed increase of ND-2100 European dunegrass. Strongly rhizomatous, vigorous grass with potential for stabilizing sandy soils, blowouts and other critical areas. Breeder block planted in 1984. Field expanded in 1985. Introduced from Europe.

Project 38A118S - Initial seed increase of ND-1105, sand bluestem. Uniform, open, spreading, sand bluestem with potential for native pasture on sandy sites. Pronounced pale blue color with villous (hairy) racemes. Breeder block established at PMC in 1985.

Final Evaluation and Release Schedule - Grasses:

<u>Accession No.</u>	<u>Species</u>	<u>Projected Year of Release</u>
Forestburg (SD-149) PI-478001	switchgrass <u>Panicum virgatum</u>	1986-87
Bonilla (SD-27) PI-315658	big bluestem <u>Andropogon gerardii</u>	1986-87
Tomahawk (ND-444) PI-478006	indiangrass <u>Sorghastrum nutans</u>	1987-88
NDG-4 PI-477994	big bluestem <u>Andropogon gerardii</u>	1987-88
NDG-965-98 PI-478002	switchgrass <u>Panicum virgatum</u>	1987-88
ND-95 PI-477995	prairie sandreed <u>Calimovilfa longifolia</u>	1992-93

FORB IMPROVEMENT

Forbs are an integral part of the native plant community in the Northern Great Plains. Identified seed sources or cultivars are needed for the revegetation of surface mined lands, wildlife habitat as well as the stabilization and beautification of disturbed areas, recreational developments and transportation corridors. Native forb and legumes from the Dakotas and Minnesota were assembled and evaluated from 1977 through 1983. Selected plants have since been transplanted or grown from seed in order to establish initial seed increase fields.

Selection and Initial Seed Increase

Project 38A109S - Initial seed increase of ND-3959 Maximilian sunflower.

Project 38A110S - Initial seed increase of ND-3651 Maximilian sunflower.

Selections were made in 1983 from an original assembly of 52 sources. Two accessions of Maximilian sunflower were established in separate fields at the PMC in 1983 and expanded in 1984. ND-3959 is a composite of 5 plants that mature earlier than ND-3651. This perennial warm season forb is best suited to moist sites and deeper soils. Maximilian sunflower is highly palatable and of good forage quality. The seeds are heavily utilized by song birds and other wildlife.

Project 38A123S - Initial seed increase of 47233T stiff sunflower. A composite of several accessions from North and South Dakota. This perennial warm season forb is adapted to dry, shallow soils and is highly palatable. One row was vegetatively established in 1986 for seed increase.

Project 38A119S - Initial seed increase of ND-1481 purple prairie clover.

Originated from Lyman County, South Dakota. This perennial legume provides high quality forage as part of a range seeding mixture. Vegetative transplanting for seed increases will be done in 1987.

CULTURAL EVALUATIONS/SPECIAL PROJECTS

Evaluation of cultural production and establishment techniques are necessary for those species and cultivars where knowledge of effective propagation and increase methods are lacking. Demonstration plantings can serve this purpose, while simultaneously fulfilling an integral part of the information program. Informal trials or special studies on grass seeding techniques, grafting or rooting, seed stratification, and equipment application or modification are typical endeavors.

Project 38A409K - Evaluation and treatment of dormancy in bareroot seedlings of hackberry. Bareroot seedlings propagated by standard nursery practices have exhibited a high or highly variable degree of dormancy once outplanted. This apparent dormancy prevents seedlings from breaking bud in the normal (natural) amount of time, thereby increasing plant stress and reducing winter survival. To address this problem, the PMC is cooperating with Dr. Rich Cunningham (ARS-Mandan) on an experiment to compare various lifting, storage and conditioning treatments. Time of lifting (spring vs. fall) type of storage ("heel-in" bed vs. cooler), and sweating process (peat vs. shingletoe at 2 different temperatures) will be examined.

Current Status: In 1986 there was very little difference among the various treatments, they all appeared to break dormancy well. Data is not complete at this time. The experiment will be repeated in 1987 with some modifications in treatments.

GRASS SEED PRODUCTION

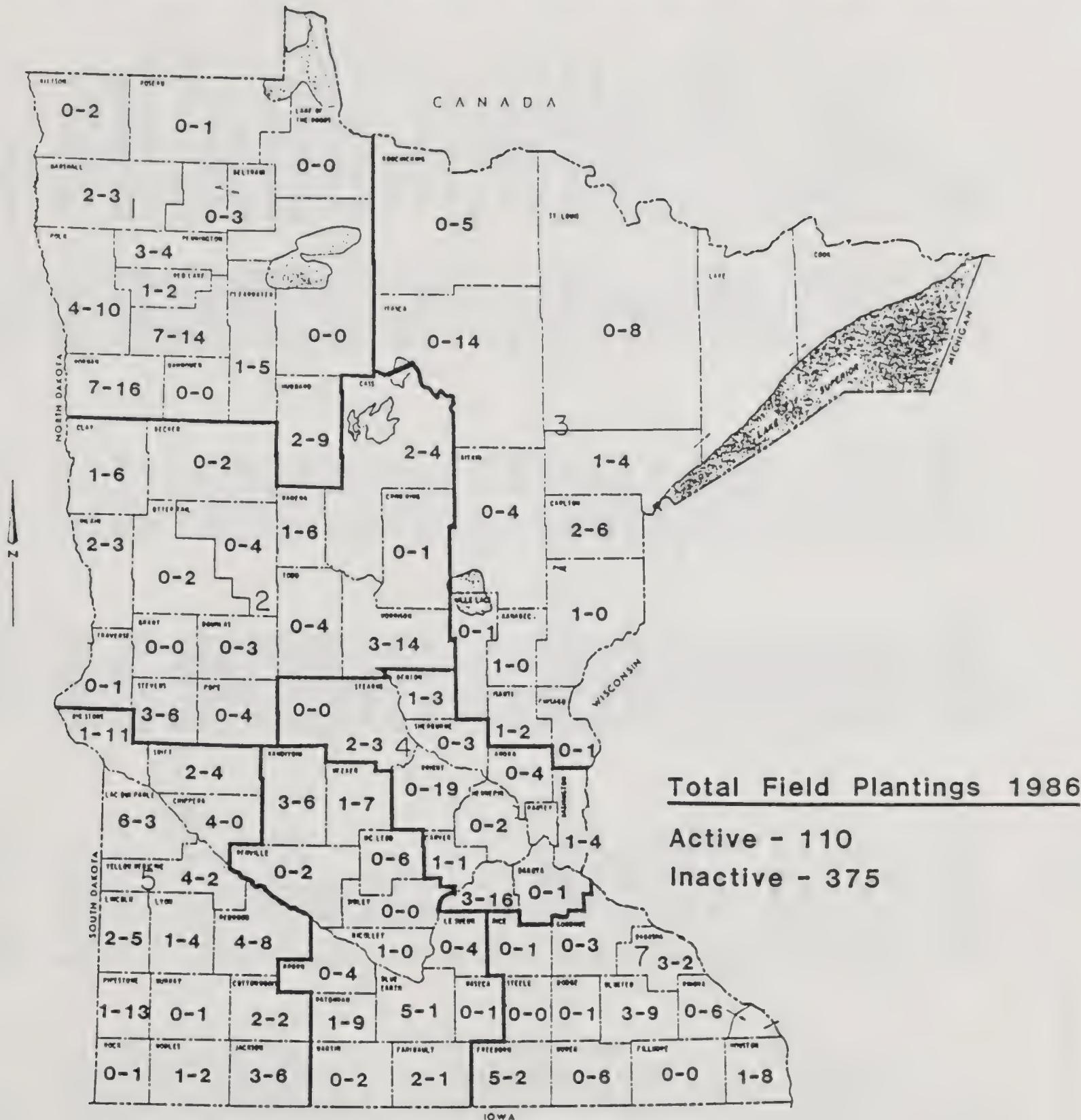
It is a primary objective and responsibility of the Plant Materials Center to grow and maintain a supply of foundation or foundation quality grass seed for officially and informally released varieties. This seed is made available to commercial seed producers for establishment of certified seed increase fields. In several cases, breeder seed must also be produced in carefully maintained and isolated breeder blocks. Additional seed increase fields of selected materials are established and maintained in order to provide a seed supply for comparative variety trials, demonstration plantings, other PMC's, research agencies and SCS District Cooperators who establish field plantings.

Plant Materials Distributed in Minnesota for Field Plantings in 1986.

A total of 1614 PLS pounds of grass and forb seed, 2705 seedlings were used to make 37 new field plantings. 816 PLS pounds of grass seed was provided to nurserymen and seed growers for commercial seed increase.

<u>Area</u>	<u>Grass Seed (PLS pounds)</u>	<u>Seedlings</u>	<u>Tree Seed (pounds)</u>
1	229	392	--
2	200	325	--
3	--	50	--
4	52	50	--
5	501	546	--
6	199	120	--
7	<u>433</u>	<u>1222</u>	<u>--</u>
Total	1614	2705	--

Plant Materials Field Plantings in Minnesota



(first number - active plantings)
(second number - inactive plantings)

Field plantings established in Minnesota in 1986.

Admin Area	MLRA Area	995 Field Office	502 Field Office	503 Cooperator	501 Field 1/ Planting No	011 Cultivar	001 PI No.	012 Name	Purpose 2/
01	056	East Polk	McIntosh	P. Kaste	MN86046	ND-444	478006	indiangrass	SDIN
01	056	East Polk	McIntosh	P. Kaste	MN86038	NDG-4	315658	big bluestem	SDIN
01	056	East Polk	McIntosh	P. Kaste	MN86047	NDG-965-98	478002	switchgrass	SDIN
01	056	East Polk	McIntosh	O. Lee	MN86045	Oahe	476982	hackberry	SDIN
02	091	Morrison	Little Falls	R. Waddell	MN86013	SD-131	6073T	mayday	WIND
02	102	Stevens	Morris	FWS	MN86039	ND-444	478006	indiangrass	SDIN
02	091	Wadena	Wadena	M. Runyan	MN86028	SD-149	478001	switchgrass	PAST
02	091	Wadena	Wadena	R. Dallman	MN86029	SD-149	478001	switchgrass	PAST
04	103	Carver	Waconia	J. Hedtke	MN86002	SD-131	6073T	mayday	WIND
04	103	Scott	Jordan	D. Wagner	MN86030	Cardan	469226	green ash	WIND
04	103	Stearns	St. Cloud	G. Braun	MN86041	SD-149	478001	switchgrass	TERR
04	103	Stearns	St. Cloud	J. Mueller	MN86042	SD-149	478001	switchgrass	TERR
04	103	Stearns	St. Cloud	J. Olson	MN86043	SD-149	478001	switchgrass	TERR
04	103	Stearns	St. Cloud	A. Lahr	MN86044	SD-149	478001	switchgrass	TERR
05	102A	Chippewa	Montevideo	K. Beito	MN86007	Cardan	469226	green ash	WIND
05	102A	Chippewa	Montevideo	D. Wehrspann	MN86012	ND-21	34900T	nannyberry	WLDF
05	103	Cottonwood	Windom	G. Polzin	MN86008	ND-21	34900T	nannyberry	WLDF
05	103	Cottonwood	Windom	G. Polzin	MN86008	SD-131	6073T	mayday	WLDF
05	103	Cottonwood	Windom	W. Muller	MN86021	SD-149	478001	switchgrass	TERR
05	103	Cottonwood	Windom	MN DNR	MN86040	SD-149	478001	switchgrass	WLDF
05	102A	Lincoln	Ivanhoe	J. Behnke	MN86003	Cardan	469226	green ash	WIND
05	102B	Nobles	Worthington	R. Nelson	MN86023	SD-149	478001	switchgrass	TERR
05	102	Nobles	Worthington	MN DNR	MN86025	SD-149	478001	switchgrass	WLDF
05	102A	Swift	Benson	F. Dolan	MN86006	Cardan	469226	green ash	WIND
05	102A	Yellow	Clarkfield	L. Denekamp	MN86001	SD-27	315658	big bluestem	SDIN
05	103	Yellow	Clarkfield	R. Smith	MN86004	Cardan	469226	green ash	WIND
05	102A	Medicine	Clarkfield	H. Tatley	MN86009	ND-21	34900T	nannyberry	WLDF
05	102A	Medicine	Clarkfield	H. Tatley	MN86009	SD-131	6073T	mayday	WLDF
06	103	Blue Earth	Mankato	L. Lunz	MN86005	Cardan	469226	green ash	WIND
06	103	Blue Earth	Mankato	L. Lunz	MN86005	SD-131	6073T	mayday	WIND
06	103	Blue Earth	Mankato	D. Wingert	MN86018	SD-149	478001	switchgrass	EACW
06	102A	Kandiyohi	Wilmar	Co. Hwy. Dept.	MN86019	SD-149	478001	switchgrass	CARD

Field plantings established in Minnesota in 1986.

711 Admin Area	506 MLRA Area	710 County	995 Field Office	503 Cooperator	502		011 Cultivar	001 PI No.	012 Name	512 Purpose 2/
					Field 1/ Planting	No.				
06	103	McLeod	Glencoe	R. Adams	MN86014		SD-131	6073T	mayday	WIND
06	103	McLeod	Glencoe	MN DNR	MN86037		SD-149	478001	switchgrass	WLDF
06	103	Waseca	Waseca	D. Halgren	MN86011		ND-21	34900T	nannyberry	WIND
07	103	Fillmore	Preston	G. Bestor	MN86032		SD-149	478001	switchgrass	PAST
07	103	Freeborn	Albert Lea	Diocese of Winona	MN86027		SD-131	6073T	mayday	WLDF
07	103	Freeborn	Albert Lea	Diocese of Winona	MN86027		ND-21	34900T	nannyberry	WLDF
07	105	Houston	Caledonia	R. Kolsrud	MN86026		Emerald	278698	crownvetch	SDIN
07	103	Steele	Owatonna	Steele Co.	SCD	MN86010	ND-21	34900T	nannyberry	WIND
07	103	Steele	Owatonna	Steele Co.	SCD	MN86010	SD-131	6073T	mayday	WIND
07	103	Steele	Owatonna	A. Vogt	MN86031		SD-27	315658	big bluestem	SDIN

1/ First two numbers of the field planting number indicate the year of establishment.

2/ Purpose

SDIN - Seed increase
 WLDF - Wildlife
 PAST - Pasture
 WIND - Windbreak
 SPEC - Special
 RANGE - Range
 TERR - Terrace
 EACW - Waterway

Active field plantings in Minnesota as of December 31, 1986.

711 Admin Area	506 MLRA Area	710 County	995 Field Office	503 Cooperator	502 Field 1/ Planting	011 Cultivar	001 PI No.	012 Name
01	56	East Polk	McIntosh	Lee Nursery	MN85048	ND-177	5729T	cotoneaster
01	91	Hubbard	Park Rapids	Hoefs, E.	MN85001	ND-1879	11850T	honeylocust
01	56	Marshall	Warren	Amundgaard, D.	MN84004	Cardan	46926	green ash
01	56	Norman	Twin Valley	Peterick, P.	MN83005	ND-14	478004	harbin pear
01	56	Norman	Twin Valley	Tjon, R.	MN85002	ND-1879	11850T	honeylocust
01	56	Pennington	Thief River	Dahlen, D.	MN84002	Cardan	469226	green ash
01	56	Pennington	Thief River	Bergland, P.	MN84003	Cardan	469226	green ash
01	56	Polk	Crookston	Anderson, S.	MN83001	Cardan	469226	green ash
01	56	Polk	McIntosh	Lee Nursery	MN83004	ND-11	477998	Amur honeysuckle
01	56	Polk	Crookston	McDonald, G.	MN85015	Oahe	476982	hackberry
01	56	Red Lake	Red Lake	MN Wheatgrowers	MN85020	Sakakawea	478005	silver buffaloberry
01	56	Red Lake	Red Lake	MN Wheatgrowers	MN85020	ND-629	477992	amur maple
01	56	Red Lake	Falls	MN Wheatgrowers	MN85020	Oahe	476982	hackberry
01	56	Red Lake	Red Lake	MN Wheatgrowers	MN85020	Cardan	469226	green ash
01	56	Red Lake	Falls	MN Wheatgrowers	MN85020	Midwest	478000	Manchurian crabapple
01	56	Red Lake	Red Lake	MN Wheatgrowers	MN85020	common	common	Ponderosa pine
01	56	Red Lake	Falls	MN Wheatgrowers	MN85020	Scarlet	478003	Mongolian Cherry
02	56	Clay	Moorhead	Olson, W.	MN85044	ND-444	478006	indiangrass
02	56	Clay	Moorhead	Olson, W.	MN85051	SD-149	478001	switchgrass
02	56	Wilkin	Breckenridge	Poppel, L.	MN85047	ND-629	477992	amur maple
02	56	Wilkin	Breckenridge	Ouse, R.	MN85016	Oahe	476982	hackberry
03	90	Carlson	Barnum	Disterhaupt, E.	MN85043	ND-444	478006	indiangrass
03	91	Isanti	Cambridge	Walker, P.	MN85005	ND-1879	11850T	honeylocust
03	91	Isanti	Cambridge	Walker, P.	MN85005	Oahe	476982	hackberry
03	90	Kanabec	Mora	Vogt, R.	MN85004	ND-1879	11850T	honeylocust
03	90	Kanabec	Mora	Vogt, R.	MN85004	Oahe	476982	hackberry
03	90	Kanabec	Mora	Vogt, R.	MN85004	ND-629	477992	amur maple
03	90	Pine	Hinckley	Lyseth, D.	MN85006	ND-1879	11850T	honeylocust

Active field plantings in Minnesota as of December 31, 1986.

711 Admin Area	506 MLRA Area	710 County	995 Field Office	503 Cooperator	502 Field 1/ Planting No		011 Cultivar	012 Name PI No.	001 Name PI No.	512 Purpose 2/
					Field 1/ Planting No	Cultivar				
04	103	Scott	Jordan	Shutrop, N.	MN85049	SD-149	478001	switchgrass	WIND	
04	103	Scott	Jordan	Bisek, J.	MN85050	SD-149	478001	switchgrass	TERR	
05	102A	Big Stone	Ortonville	Mills, M.	MN85007	ND-1879	11850T	honeylocust	WIND	
05	102A	Big Stone	Ortonville	Mills, M.	MN85007	Oahe	476982	hackberry	WIND	
05	102A	Chippewa	Montevideo	Chippewa County	MN85021	ND-629	477992	amur maple	WIND	
05	102A	Chippewa	Montevideo	Moe, D.	MN85022	Oahe	476982	hackberry	WIND	
05	102A	Chippewa	Montevideo	Sonstaggard, G.	MN85026	SD-149	478001	switchgrass	TERR	
05	102A	Chippewa	Montevideo	Tostenson, A.	MN85027	SD-149	478001	switchgrass	TERR	
05	103	Cottonwood	Windom	MN DNR	MN85035	SD-149	478001	switchgrass	WLDF	
05	103	Cottonwood	Windom	MN DNR	MN85052	SD-149	478001	switchgrass	WLDF	
05	103	Jackson	Lakefield	Hildebrandt, N.	MN85010	ND-1879	11850T	honeylocust	WIND	
05	102A	Lac Qui	Madison	Schmidt, A.	MN85025	SD-149	478001	switchgrass	TERR	
05	102A	Parle	Madison	Ninneman, B.	MN85030	SD-149	478001	switchgrass	EACW	
05	102A	Parle	Madison	Adelman, G.	MN85031	SD-149	478001	switchgrass	TERR	
05	102A	Parle	Parle	Ivanhoe	MN85008	ND-1879	11850T	honeylocust	WIND	
05	102A	Lincoln	Lincoln	Ivanhoe	MN85009	ND-1879	11850T	honeylocust	WIND	
05	102	Lyon	Marshall	Wewetzer, L.	MN85028	SD-149	478001	switchgrass	TERR	
05	102	Nobles	Worthington	Goebel, F.	MN85029	SD-149	478001	switchgrass	TERR	
05	103	Redwood	Redwood Falls	U of MN, SWES	MN85023	Oahe	476982	hackberry	SPEC	
05	103	Redwood	Redwood Falls	U of MN, SWES	MN85023	ND-629	477992	amur maple	SPEC	
05	103	Redwood	Redwood Falls	U of MN, SWES	MN85023	ND-20	5731T	Arnold hawthorn	SPEC	
05	103	Redwood	Redwood Falls	U of MN, SWES	MN85023	ND-1879	11850T	honeylocust	SPEC	
05	103	Redwood	Redwood Falls	U of MN, SWES	MN85023	Scarlet	478003	Mongolian cherry	SPEC	
05	103	Redwood	Redwood Falls	U of MN, SWES	MN85023	ND-177	5729T	Cotoneaster	SPEC	
05	103	Redwood	Redwood Falls	U of MN, SWES	MN85023	Sakakawea	478005	silver buffaloberry	SPEC	
05	103	Redwood	Redwood Falls	U of MN, SWES	MN85023	SD-149	478001	switchgrass	WLDF	
05	102	Yellow	Clarkfield	Ponitzke, L.	MN85034	SD-149	478001	switchgrass	EACW	
05	102A	Medicine	Clarkfield	Peterson, G.	MN85032	SD-149	478001	switchgrass	PAST	
05	103	Medicine	Clarkfield	Larson, A.	MN85033	SD-149	478001	switchgrass	WIND	
05	103	Medicine	Clarkfield	Daves, R.	MN85017	Oahe	476982	hackberry		

Active field plantings in Minnesota as of December 31, 1986.

711 Admin Area	506 MLRA	710 County	995 Field Office	502			001 PI No.	012 Name
				503 Cooperator	Field 1/ Planting No	011 Cultivar		
06	103	Blue Earth	Mankato	Lunz, L.	MN85011	ND-1879	11850T	honeylocust
06	103	Blue Earth	Mankato	Lunz, L.	MN85011	Oahe	476982	hackberry
06	103	Blue Earth	Mankato	Davis-Richards Farms	MN85012	ND-1879	11850T	honeylocust
06	103	Blue Earth	Mankato	Davis-Richards Farms	MN85012	ND-629	477992	amur maple
06	103	Blue Earth	Mankato	Baker, M.	MN85036	SD-149	478001	switchgrass
06	103	Blue Earth	Mankato	Blue Earth Co. Park	MN85037	SD-149	478001	switchgrass
06	102A	Kandiyohi	Willmar	Gustafson, W.	MN85019	ND-629	477992	amur maple
06	103	Kandiyohi	Willmar	Fosso, D.	MN85040	SD-149	478001	switchgrass
06	103	Kandiyohi	Willmar	Williamson, J.	MN85041	SD-149	478001	switchgrass
06	103	Nicollet	St. Peter	Freundl, E.	MN85018	Oahe	476982	hackberry
06	103	Watowwan	St. James	Holmquist, R.	MN85039	SD-149	478001	switchgrass
07	105	Olmsted	Rochester	MN DNR	MN85013	ND-1879	11850T	honeylocust
07	105	Olmsted	Rochester	MN DNR	MN85013	Oahe	476982	hackberry
07	105	Olmsted	Rochester	MN DNR	MN85013	ND-629	477992	amur maple
07	105	Wabasha	Wabasha	MN DNR	MN85042	SD-149	478001	switchgrass
07	105	Wabasha	Wabasha	MN DNR	MN85014	ND-1879	11850T	honeylocust
07	105	Wabasha	Wabasha	MN DNR	MN85014	Oahe	476982	hackberry

1/ First two numbers of the field planting number indicate the year of establishment.

2/ Purpose

SDIN - Seed increase
 WLDF - Wildlife
 PAST - Pasture
 WIND - Windbreak
 SPEC - Special
 RANGE - Range
 TERR - Terrace
 EACW - Waterway

Field plantings placed in inactive status in Minnesota as of December 31, 1986.

711 Admin Area	506 MLRA	710 Field Office	995 County	502			503			501			012		
				Field Cooperator	1/ Planting No.	Cultivar	Field Cooperator	1/ Planting No.	Cultivar	Field Cooperator	1/ Planting No.	Cultivar	Field Cooperator	1/ Planting No.	Cultivar
01	56	Marshall	Warren	Knutson, M.	MN82008		Cardan	ND-14		469226	green ash		SDIN		
01	56	Norman	Twin Valley	Severson, B.	MN82003		ND-14			478004	harbin pear		WIND		
01	56	Norman	Twin Valley	Chisolm, K.	MN82004		ND-14			478004	harbin pear		WIND		
01	56	Norman	Twin Valley	Miller, R.	MN82005		ND-14			478004	harbin pear		WIND		
01	56	Norman	Twin Valley	Peterson, J.	MN82006		ND-14			478004	harbin pear		WIND		
01	56	Norman	Twin Valley	Aaby, H.	MN82007		Cardan	469226		469226	green ash		SDIN		
01	56	Polk	Crookston	Ross, R.	MN82001		Cardan	469226		469226	green ash		SDIN		
01	56	Polk	McIntosh	Lee Nursery	MN82002		ND-14			478004	harbin pear		SDIN		
01	56	Polk	McIntosh	Lee Nursery	MN82002		ND-313			477999	R.T. honeysuckle		SDIN		
02	57	Cass	Walker	Deep Portage	MN84005		ND-95			477995	prairie sandreed		WLD		
				Cons. Res.											
02				Morrison	Little Falls	MN DNR				NDG-965-98			WLDF		
02				Morrison	Little Falls	MN DNR				ND-444			WLDF		
02	91			Morrison	Little Falls	MN DNR				NDG-4			WLDF		
04	91			Dakota	Farmington	Almquist				ND-3794			SPEC		
04	90			Washington	Stillwater	MN DNR				SD-149			WLDF		
05	102A			Swift	Benson	Duckwitz, G.				SD-149			EACW		
05	102A			Yellow	Clarkfield	Lac Qui Parle				ND-14			WLDF		
				Medicine		Wtr. Shd. Dist.									
07	103			Freeborn	Albert Lea	Wedge Nursery				ND-313			SDIN		
07	105			Houston	Caledonia	Klug, S.				SD-149			EACW		

1/ First two numbers of the field planting number indicate the year of establishment.

2/ Purpose

SDIN - Seed increase
 WLDF - Wildlife
 PAST - Pasture
 WIND - Windbreak
 SPEC - Special
 RANGE - Range
 TERR - Terrace
 EACW - Waterway

Field plantings terminated in Minnesota as of December 31, 1986.

711 Admin Area	506 MLRA	710 County	995 Field Office	502		011 Field 1/ Planting No	012 Name PI No.
				503 Cooperator	500 Cultivar		
01	57	Clearwater	Bagley	Thompson, D.	MN85003	ND-1879	11850T
02	102A	Stevens	Morris	Anderson, C.	MN85045	Oahe	476982
03	90	Carlton	Barnum	Barnum H.S.	MN82016	Cardan	469226
03	90	Carlton	Barnum	Barnum H.S.	MN82016	ND-1863	5909T
03	90	Carlton	Barnum	Barnum H.S.	MN82016	ND-14	478004
03	90	Carlton	Barnum	Barnum H.S.	MN82016	ND-686	6225T
03	90	Carlton	Barnum	Barnum H.S.	MN82016	SD-149	478001
05	102A	Lincoln	Ivanhoe	Behnke, J.	MN86033	SD-149	478001
05	103	Nobles	Worthington	Nobles Co. Hwy.	MN86022	SD-149	464583
06		Faribault	Blue Earth		MN85046	Aroostock	

1/ First two numbers of the field planting number indicate the year of establishment.

2/ Purpose

SDIN - Seed increase
WLDF - Wildlife
PAST - Pasture
WIND - Windbreak
SPEC - Special
RNGE - Range
TERR - Terrace
EACW - Waterway

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
10/27/1987

ST	MLRA	SOIL SERIES	SOIL ADM	CNT	509	711	505	503	001	002	502	FIELD	PLANT NUMBER	ACCN NUMBER	PLNT SYMBOL	PURP NO	YR	AMT	SD	STD	ACRE RATE	VIS	VIG	WDC	ADPT	STAT	
*	MN	057			21	DEEP	PORTAGE	COVS.	478006	SONU2	4N84005	WLDF	*84	1.0	4.0	6	7	1	3	4							
*	MN	057			21	DEEP	PORTAGE	CONS.	478006	SONU2	MN84005	WLDF	*85	1.0	4.0	3	5	5	7	4							
*	MN	057			21	DEEP	PORTAGE	CONS.	478006	SONU2	MN84005	WLDF	*86	1.0	4.0	2	5	7	5	4							
*	MN	090	CUSHING	SL	97	MN	DNR		478002	PAV12	MN84008	*84	5.0	5.0	6	5	3	3	4								
*	MN	090	CUSHING	SL	97	MN	DNR		478002	PAV12	MN84008	*85	5.0	5.0	30	5	5	5	5	1	4						
*	MN	090	CUSHING	SL	97	MN	DNR		478002	PAV12	MN84008	*86	5.0	5.0	30	5	5	5	5	1	4						
*	MN	090	CUSHING	SL	97	MN	DNR		478006	SONU2	MN84008	WLDF	*84	5.0	5.0	30	5	5	5	5	1	4					
*	MN	090	CUSHING	SL	97	MN	DNR		478006	SONU2	MN84008	WLDF	*85	5.0	5.0	30	5	5	5	5	1	4					
*	MN	090	CUSHING	SL	97	MN	DNR		478006	SONU2	MN84008	WLDF	*86	5.0	5.0	30	5	5	5	5	1	4					
*	MN	090	CUSHING	LS	97	MN	DNR		478006	SONU2	MN84008	WLDF	*86	5.0	10.0	30	5	5	5	5	1	4					
*	MN	057	MENAHGA	LS	1	29	B	MYERS	478001	PAV12	MN78001	PAST	*79	2.0	2.0	1	2	1	1	1							
*	MN	057	MARQUETTE	LS	1	29	B	MYERS	478001	PAV12	MN78001	PAST	*80	3.0	3.0												
*	MN	057	MARQUETTE	LS	1	29	3	MYERS	478001	PAV12	MN78001	PAST	*82	3.0	3.0												
*	MN	057	MENAHGA	LS	1	29	B	MYERS	478006	SONU2	MN78001	*79	3.0	3.0	1	2	5	1	1	3	4						
*	MN	055A	HAMERLY-SVEA	L	1	71	USDI	FWS	477994	ANGE	MN84001	WLDF	*84	9.0	9.0	5	3	1	3	4							
*	MN	056	GRIMSTEAD	LS	1	119	P	KASTE	477994	ANGE	MN83002	SDIN	*83	10.0	10.0	3	5	3	3	1							
*	MN	056	GRIMSTEAD	LS	1	119	P	KASTE	477994	ANGE	MN83002	SDIN	*84	10.0	10.0	4	1	1	3	1							
*	MN	056	GRIMSTEAD	LS	1	119	P	KASTE	477994	ANGE	MN83002	SDIN	*85	25	25	3	3	3	3	1							
*	MN	056	GRIMSTEAD	LS	1	119	P	KASTE	477994	ANGE	MN83002	SDIN	*85	25	25	3	3	3	3	1							
*	MN	157	NEBISH	L	1	119	P	OFSTEDAL	478001	PAV12	MN83003	WLDF	*84	4.0	5.0	6	3	1	3	1							
*	MN	157	NEBISH	L	1	119	P	OFSTEDAL	478001	PAV12	MN83003	WLDF	*85	30	5	5	5	3	1	3							
*	MN	056	SWENODA	SL	1	119	P	KASTE	477994	ANGE	MN86038	SDIN	*86	1.0	13.6	12	3	3	3	4							
*	MN	056	WAUKON	L	1	119	P	KASTE	478006	SONU2	MN86046	SDIN	*86	8.7	1.3	8	3	1	3	1							
*	MN	057	BARNES-LANGEI	L	2	5	USDI	F&WS	478001	PAV12	MN81004	WLDF	*83	5.0	0	4	3	3	3	1							
*	MN	057	BARNES-LANGEI	L	2	5	USDI	F&WS	478001	PAV12	MN81004	WLDF	*84	5.0	0	2	3	1	3	1							
*	MN	057	BARNES-LANGEI	L	2	5	USDI	F&WS	478001	PAV12	MN81004	WLDF	*85	380	3	5	3	1	3	1							
*	MN	088	BRAINERD	SL	2	21	L	KUSCHEL	478001	PAV12	MN75021	PAST	*80	2	3	1	3	1	3	1							
*	MN	088	BRAINERD	SL	2	21	L	KUSCHEL	478001	PAV12	MN75021	PAST	*81	4	1	3	1	3	1								
*	MN	088	BRAINERD	SL	2	21	L	KUSCHEL	478001	PAV12	MN75021	PAST	*82	4	1	3	1	3	1								
*	MN	088	BRAINERD	SL	2	21	L	KUSCHEL	478001	PAV12	MN75021	PAST	*83	7	3	3	3	1	3	1							
*	MN	088	BRAINERD	SL	2	21	L	KUSCHEL	478001	PAV12	MN75021	PAST	*84	3	1	3	1	3	1								
*	MN	088	BRAINERD	SL	2	21	L	KUSCHEL	478001	PAV12	MN75021	PAST	*85	30	5	5	3	1	3	1							
*	MN	088	BRAINERD	SL	2	21	L	KUSCHEL	478001	PAV12	MN75021	PAST	*85	30	5	5	3	1	3	1							
*	MN	090	CHE TCK	SL	2	21	CASS	CO. LAND DEPT.	477994	ANGE	MN81005	WLDF	*81	2.0	5.0	2	1	1	1	3							
*	MN	090	CHE TCK	SL	2	21	CASS	CO. LAND DEPT.	477994	ANGE	MN81005	WLDF	*82	2.0	5.0	3	1	1	1	3							
*	MN	090	CHE TCK	SL	2	21	CASS	CO. LAND DEPT.	477994	ANGE	MN81005	WLDF	*84	2.0	5.0	4	5	1	1	3							
					3=	600)	5=	EXCELLENT																			
					7=	POOR	9=	VERY POOR																			

Legend:

- 505 CNT NUM (FIPS County Code)
- 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
- 517 PURP (Purpose)
- 801 YR RC (Year of record)
- 531 AMT ACRE (Number of acres)
- 523 SD RATE (Seeding rate)
- 830 STD VIS (Visual rating of stand or plants per square yard)

833 VIG (Plant vigor)
821 WDC (Weed competition)
910 ADPT (Adaptation to site)
713 STAT (Status: active, inactive, terminated)

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
10/27/1987

ST	MLRA	SOIL SERIES	SOIL TEXT	AD ₄	CYT	005	005	005	005	005	005	001	002	002	FIELD	PLANT	ACCN	PLANT NUMBER	SYMBOL	PLNT NO	PJRP	RC	ACRE	RATE	VIS	VIG	WDC	ADPT	STAT	
*	MN	090	CHE TCK	SL	2	21	CASS	CNTY	LAND	DEPT	477994	ANGE	MN81005	WLDF	*85	201	531	525	830	833	921	910	713	3	3	1	1	1	1	
*	MN	090	CHE TCK	SL	2	21	CASS	CO.	LAND	DEPT	477994	ANGE	MN81005	WLDF	*85	200	500	30	30	30	30	30	30	30	30	30	30	30	30	30
*	MN	090	CHE TCK	SL	2	21	CASS	CNTY	LAND	DEPT	478001	PAV12	MN81005	WLDF	*85	100	100	6	5	5	5	5	5	5	5	5	5	5	5	5
*	MN	090	CHE TCK	SL	2	21	CASS	CO.	LAND	DEPT	478002	PAV12	MN81005	WLDF	*82	100	100	6	5	1	1	3	1	3	1	3	1	3	1	
*	MN	090	CHE TCK	SL	2	21	CASS	CO.	LAND	DEPT	478002	PAV12	MN81005	WLDF	*83	100	100	5	5	1	1	3	1	3	1	3	1	3	1	
*	MN	090	CHE TCK	SL	2	21	CASS	CO.	LAND	DEPT	478002	PAV12	MN81005	WLDF	*84	100	100	6	5	1	1	3	1	3	1	3	1	3	1	
*	MN	090	CHE TCK	SL	2	21	CASS	CNTY	LAND	DEPT	478002	PAV12	MN81005	WLDF	*85	3	5	3	5	1	1	3	1	3	1	3	1	3	1	
*	MN	090	CHE TCK	SL	2	21	CASS	CO.	LAND	DEPT	478002	PAV12	MN81005	WLDF	*85	100	100	3	5	1	1	3	1	3	1	3	1	3	1	
*	MN	090	CHE TCK	SL	2	21	CASS	CO.	LAND	DEPT	478006	SONU2	MN81005	WLDF	*81	200	100	8	3	1	1	3	1	3	1	3	1	3	1	
*	MN	090	CHE TCK	SL	2	21	CASS	CO.	LAND	DEPT	478006	SONU2	MN81005	WLDF	*82	200	100	8	3	1	1	3	1	3	1	3	1	3	1	
*	MN	090	CHE TCK	SL	2	21	DEEP	PORTAGE	CONS.	*	477994	ANGE	MN84005	WLDF	*84	100	200	5	5	1	1	3	1	3	1	3	1	3	1	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	477994	ANGE	MN84005	WLDF	*85	100	200	18	3	5	1	3	1	3	1	3	1	3	1	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	477994	ANGE	MN84005	WLDF	*85	100	200	18	3	5	1	3	1	3	1	3	1	3	1	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	477994	ANGE	MN84005	WLDF	*86	4	5	5	5	4	5	5	5	4	5	5	4	5	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	477994	ANGE	MN84005	WLDF	*86	100	200	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	477995	CALO	MN84005	WLDF	*85	4	5	5	5	4	5	5	4	5	5	4	5	5	4	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	477995	CALO	MN84005	WLDF	*86	3	5	7	4	5	7	4	5	7	4	5	7	4	5	7
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*84	100	100	5	5	1	1	3	1	3	1	3	1	3	1	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	4	5	5	5	4	5	5	4	5	5	4	5	5	4	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.	*	478002	PAV12	MN84005	WLDF	*85	100	100	4	5	5	5	4	5	5	4	5	5	4	5	
*	MN	057	*	SL	2	21	DEEP	PORTAGE	CONS.																					

A SUMMARY OF HERBACEOUS FILL PLANTINGS IN MINNESOTA
10/27/1987

1. *Antennae* are long, thin, sensory appendages, usually located on the head, used for detecting chemical, thermal, and mechanical stimuli.

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
10/27/1987

ST	MLRA	SOIL SERIES	TEXT AREA	SOIL ADJ	CNT	SOIL AREA	COOPERATOR	001	002	PLANT	FIELD	017	801	531	830	833	821	910	713		
***								NUMBER	ACCN	SYMBOL	PLNT	NO	PURP	RC	ACRE	RATE	VIS	VIG	WDC	ADPT	STAT
*	MN	102	TARA•DDLAND•BUSE	SICL	2	149	USDI-FWS	478002	PAV12	MN78008	WLDF	*83	4•0	5•0	8	7	1	3	1		
*	MN	102	TARA•DDLAND•BUSE	SICL	2	149	USDI-FWS	478002	PAV12	MN78008	WLDF	*84	4•0	5•0	9	5	1	3	1		
*	MN	102A	TARA•DDLAND•BUSE	SICL	2	149	USDI•FWS	478002	PAV12	MN78008	WLDF	*85	4•0	5•0	3	5	5	3	1		
*	MN	102	TARA•DDLAND•BUSE	SICL	2	149	USDI-FWS	478002	PAV12	MN78008	WLDF	*85	4•0	5•0	3	5	5	3	1		
*	MN	102	TARA•DDLAND•BUSE	SICL	2	149	USDI-FWS	478006	SONU2	MN78008	WLDF	*81	4•0	3•0	9	1	3	1			
*	MN	102	TARA•DDLAND•BUSE	SICL	2	149	USDI-FWS	478006	SONU2	MN78008	WLDF	*82	4•0	3•0	4	7	3	3	1		
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI-FWS	478001	PAV12	MN82010	WLDF	*83	5•0	4	2	5	5	3	1		
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI-FWS	478001	PAV12	MN82010	WLDF	*84	5•0	1	1	1	1	3	1		
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI-FWS	478001	PAV12	MN82010	WLDF	*85	5•0	100	1	1	3	1			
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI•FWS•	478001	PAV12	MN82010	SDIN	*85	100	1	1	3	1	1			
*	MN	102A	FARMDALE	CL	2	149	USDI-FWS	315658	ANGE	MN83006	WLDF	*84	10•0	10•0	0	4	1	3	1		
*	MN	102A	FARMDALE	CL	2	149	USDI-FWS	315658	ANGE	MN83006	WLDF	*85	7	1	5	1	1	1			
*	MN	102A	FARMDALE	CL	2	149	USDI-FWS	315658	ANGE	MN83006	WLDF	*85	10•0	10•0	7	1	5	1			
*	MN	102	FORMAN	CL	2	149	USDI FWS	478006	SONU2	MN86039	SDIN	*86	*9	1•0	65	3	1	A			
*	MN	091	ROCKWOOD	SL	2	159	M RUNYAN	478001	PAV12	MN86028	PAST	*86	5•0	5•0	20	3	5	A			
*	MN	091	HUNTERSVILLE	LS	2	159	R DALLMAN	478001	PAV12	MN86029	PAST	*86	5•0	5•0	6	3	7	A			
*	MN	090	AUTOMBA	FSL	3	17	E DISTERHAUPT	478006	SONU2	MN85043	PAST	*85	*4	1•2	5	9	1				
*	MN	88	NASHWAUK	VFSL	3	137	USDA-FS	478001	PAV12	MN83008	PAST	*83	10•0	6•0	0	1	1	3			
*	MN	88	NASHWAUK	VFSL	3	137	USDA-FS	478001	PAV12	MN83008	PAST	*84	10•0	6•0	0	1	3	1			
*	MN	88	NASHWAUK	VFSL	3	137	USDA-FS	478001	PAV12	MN83008	PAST	*85	10•0	6•0	0	275	3	1			
*	MN	88	NASHWAUK	VFSL	3	137	USDA-FOREST SERVICE	478001	PAV12	MN83008	PAST	*85	275	3	5	5	1				
*	MN	091	NYMORE	LS	4	3	ANOKA SR.	478001	PAV12	MN72014	SPEC	*80	1•0	10•0	1	1	1	3			
*	MN	091	NYMORE	LS	4	3	ANOKA SR.	478001	PAV12	MN72014	SPEC	*81	1•0	10•0	2	1	1	3			
*	MN	091	NYMORE	LS	4	3	ANOKA SR.	478001	PAV12	MN72014	SPEC	*82	1•0	10•0	3	1	1	3			
*	MN	091	NYMORE	LS	4	3	ANOKA SR.	478001	PAV12	MN72014	SPEC	*83	1•0	10•0	1	1	1	3			
*	MN	091	NYMORE	LS	4	3	ANOKA SR.	478001	PAV12	MN72014	SPEC	*84	1•0	10•0	1	1	1	3			
*	MN	091	NYMORE	LS	4	3	ANOKA SR.	478001	PAV12	MN72014	SPEC	*85	110	1	3	1	1				
*	MN	091	NYMORE	LS	4	3	ANOKA SR.	478001	PAV12	MN72014	SPEC	*85	1•0	10•0	110	1	1				
*	MN	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME FM	315658	ANGE	MN77005	*78	1•0	5•0	3	3	1	1				
*	MN	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME FM	315658	ANGE	MN77005	*80	1•0	5•0	2	2	1					
*	MN	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME FM	477994	ANGE	MN77005	*78	1•0	5•0	3	5	1					
*	MN	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME FM	477994	ANGE	MN77005	*80	1•0	5•0	2	2	1					
*	MN	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME FM	478002	PAV12	MN77005	*78	1•0	3•0	3	5	1					
*	MN	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME FM	478002	PAV12	MN77005	*80	1•0	3•0	4	3	1					
*	MN	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME FM	478006	SONU2	MN77005	*78	1•0	4•0	3	3	1					
*	MN	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME FM	478006	SONU2	MN77005	*80	1•0	4•0	4	2	1					

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
10/27/1987

MEETINGS IN M

ST	MLRA	SOIL SERIES	SOIL TEXT	ADM CNT	NUM	COOPERATOR	001	002	PLANT	FIELD	502	517	801	531	830	833	821	910	713	ADPT STAT
MN	103	HAYDEN	SL	4	139	S SCHUSTER	478001	PAV12	WLDF	WLDF	*81	3.0	7.0	7	9	9	3	1		
MN	103	HAYDEN	SL	4	139	S SCHUSTER	478001	PAV12	WLDF	WLDF	*82	3.0	7.0	6	7	9	3	1		
MN	103	HAYDEN	SL	4	139	S SCHUSTER	478001	PAV12	WLDF	WLDF	*83	3.0	7.0	7	9	9	3	1		
MN	103	HAYDEN	SL	4	139	S SCHUSTER	478001	PAV12	WLDF	WLDF	*84	3.0	7.0	1	5	9	3	1		
MN	103	HUBBARD	FS	4	139	T KORNDER	478001	PAV12	WLDF	WLDF	*81	2		3	5	7	3	1		
MN	103	HUBBARD	FS	4	139	T KORNDER	478001	PAV12	WLDF	WLDF	*82	2		3	5	7	3	1		
MN	103	HUBBARD	FS	4	139	T KORNDER	478001	PAV12	WLDF	WLDF	*83	2	1	1	3	1	3	1		
MN	103	HUBBARD	FS	4	139	T KORNDER	478001	PAV12	WLDF	WLDF	*84	2	1	1	3	1	3	1		
MN	103	HUBBARD	FS	4	139	T KORNDER	478001	PAV12	WLDF	WLDF	*85	2	1	1	3	1	3	1		
MN	103	HUBBARD	FS	4	139	T KORNDER	478001	PAV12	WLDF	WLDF	*86	2	1	1	3	1	3	1		
MN	103	HUBBARD	FS	4	139	T KORNDER	478001	PAV12	WLDF	WLDF	*87	2	1	1	3	1	3	1		
MN	103	HUBBARD	FS	4	139	E MULHAUSEN	478001	PAV12	WLDF	WLDF	*88	2	1	1	3	1	3	1		
MN	103	HUBBARD	FS	4	139	E MULHAUSEN	478001	PAV12	WLDF	WLDF	*89	2	1	1	3	1	3	1		
MN	103	HAYDEN	SL	4	139	J S1USTER	478001	PAV12	WLDF	WLDF	*90	5	7	5	7	5	7	3		
MN	103	HUBBARD	FS	4	139	F MULHAUSEN	478001	PAV12	WLDF	WLDF	*91	5	7	9	9	9	9	3		
MN	103	HUBBARD	FS	4	139	E MULHAUSEN	478001	PAV12	WLDF	WLDF	*92	3	9	1	3	1	3	1		
MN	103	HAYDEN	SL	4	139	N SHUTROP	478001	PAV12	WLDF	WLDF	*93	5	7	5	7	5	7	3		
MN	103	WAUBEGAN-KASOTA	SIL	4	139	N SHUTROP	478001	PAV12	WLDF	WLDF	*94	5	7	5	7	5	7	3		
MN	103	WAUBEGAN-KASOTA	SIL	4	139	N SHUTROP	478001	PAV12	WLDF	WLDF	*95	5	7	5	7	5	7	3		
MN	103	LESTER	SIL	4	139	J BISEK	478001	PAV12	WLDF	WLDF	*96	4	8	0	1	0	4	1		
MN	103	LESTER	SIL	4	139	J BISEK	478001	PAV12	WLDF	WLDF	*97	4	8	0	5	5	5	3		
MN	103	NORMANIA	L	4	145	G BRAUN	478001	PAV12	WLDF	WLDF	*98	2	1.5	0	3	9	4	1		
MN	103	NORMANIA	L	4	145	J MUELLER	478001	PAV12	WLDF	WLDF	*99	2	1.5	0	3	9	4	1		
MN	103	KORONIS	SL	4	145	J OLSON	478001	PAV12	WLDF	WLDF	*100	1	1.5	1	1	9	4	1		
MN	103	KORONIS	L	4	145	A LAIR	478001	PAV12	WLDF	WLDF	*101	3	9	3	9	4	1			
MN	103	COLAND-TERRIL	CL	5	15	O YOUNGERBERG	478001	PAV12	WLDF	WLDF	*102	85								
MN	102A	DOLAND-SWANLAK	SIL-	5	23	G SONSTAGARD	478001	PAV12	WLDF	WLDF	*103	85								
MN	102A	DOLAND-SWANLAK	SIL-	5	23	G SONSTAGARD	478001	PAV12	WLDF	WLDF	*104	85								
MN	102A	ROTHSAY-ZELL	SIL	5	23	A TOSTENSON	478001	PAV12	WLDF	WLDF	*105	85								
MN	102A	ROTHSAY-ZELL	SIL	5	23	A TOSTENSON	478001	PAV12	WLDF	WLDF	*106	85								
MN	103	ESTHERVILLE BISC	SL L	5	33	DNR WILDLIFE MANAGER	478001	PAV12	WLDF	WLDF	*107	85								
MN	103	CLARIOV	L	5	33	W MULLER	478001	PAV12	WLDF	WLDF	*108	85								
MN	103	ESTHERVILLE BISC	SL & L	5	33	W MULLER	478001	PAV12	WLDF	WLDF	*109	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*110	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*111	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*112	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*113	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*114	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*115	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*116	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*117	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*118	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*119	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*120	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*121	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*122	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*123	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*124	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*125	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*126	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*127	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*128	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*129	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*130	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*131	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*132	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*133	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*134	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*135	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*136	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*137	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*138	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*139	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*140	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*141	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*142	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*143	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*144	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*145	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*146	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*147	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*148	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*149	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*150	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*151	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*152	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*153	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*154	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*155	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*156	85								
MN	102A	ARVILLA	SL	5	73	D TAYLOR	478001	PAV12	WLDF	WLDF	*157	85								
MN	102A	ARVILLA	SL	5	73</															

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A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
19/27/1987

07/27/1987

ST	MATERIAL	SOIL	SOIL SERIES	TEXT	AREA	NUM	COOPERATOR	NUMBER	SYM301	PLNT	NO	PURP	RC	ACRE	RATE	VIS	VIS	WDC	AUPI	STAI	
*	504	506	507		509	711	505	503		001	002	502	517	801	531	523	830	833	821	910	713
					SOIL	ADM	CNT		ACCN	PLANT	FIELD		YR	AMT	STD	STD					

A SUMMARY OF HERBACEOUS -IELJ PLANTINGS IN MINNESOTA
10/27/1987

*	504	506	507	509	711	505	503	001	002	502	FIELD	523	830	833	821	910	713			
*	ST	MLRA	SOIL SERIES	TEXT	SOIL	ADM	CNT	ACCN	PLANT	PLANT	YR	AMT	SD	STD	ACRE	RATE	VIS	WJC	ADPT	STAT
*	MN	102B	CLAIRION-EVERLY		5	105	F	GOEBEL	478001	PAV12	MN85029	TERR	*86	*1	*5	7	9	7	4	
*	MN	102B	RUSHMORE&WILMONT	SICL	5	105	NOBLES CO Hvy DEPT	478001	PAV12	MN86022	CARD	*86	2.5	1.0	5	3	3	3	1	
*	MN	102B	EVERLY	CL	5	105	R NELSON	478001	PAV12	MN86023	TERR	*86	*1	*5	185	3	3	3	4	
*	MN	102B	ESTHERVILLE	L	5	105	MN DNR	478001	PAV12	MN86025	WLDF	*86	*5	225	3	1	1	1	1	
*	MN	102A	BARNES-VIENNA	SIL	5	117	M WINSEL	478001	PAV12	MN78014	PAST	*80	1.0	5.0	3	3	3	3	1	
*	MN	102A	BARNES-VIENNA	SIL	5	117	M WINSEL	478001	PAV12	MN78014	PAST	*81	1.0	5.0	1	3	1	3	1	
*	MN	102A	BARNES-VIENNA	SIL	5	117	M WINSEL	478001	PAV12	MN78014	PAST	*82	1.0	5.0	2	3	1	3	1	
*	MN	102A	BARNES-VIENNA	SIL	5	117	M WINSEL	478001	PAV12	MN78014	PAST	*83	1.0	5.0	5	5	3	3	1	
*	MN	102A	BARNES-VIENNA	SIL	5	117	M WINSEL	478001	PAV12	MN78014	PAST	*84	1.0	5.0	2	4	1	3	1	
*	MN	102A	BARNES-VIENNA	SIL	5	117	M WINSEL	478001	PAV12	MN78014	PAST	*85	1.0	5.0	80	1	3	3	1	
*	MN	102A	BARNES-VIENNA	SIL	5	117	M WINSEL	478001	PAV12	MN78014	PAST	*85	1.0	5.0	80	1	3	3	1	
*	MN	102A	BARNES-VIENNA	LSIL	5	117	M WINSEL	478001	PAV12	MN78015	PAST	*80	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*81	7.0	6	3	9	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*82	7.0	3	1	3	3	1	3	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*83	7.0	3	2	1	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	5	2	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	5	2	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	6	3	9	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	6	3	9	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN	478001	PAV12	MN78015	PAST	*84	7.0	3	9	3	3	3	1	
*	MN	102A	FLANDREAU-KRANZB	SIL	5	117	K PAULSEN													

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
10/27/1987

ST	MLRA	SOIL SERIES	TEXT AREA	SOIL AREA	ADM CVT	001 ACCN NUMBER	002 PLANT SYMBOL	502 FIELD PLNT NO	FIELD PURP RC	517 YR ACRE RATE	531 STD ACRE	830 VIS RATE	821 WDC VIG	910 ADPT	713 STAT
***	MN	102A MADDICK	SL	5 151 6	KNUTSON	478001	PAV12	MN79006 WLDF	*86	3•0	30	1	4	3	1
***	MN	102A MADDICK	SL	5 151 6	KNUTSON	478001	PAV12	MN79006 WLDF	*86	30	1	4	3	1	
***	MN	102A VALLERS-WINGER	SICL	5 151 M	WEIMERSKIRCH	478001	PAV12	MN83010 WLDF	*83	1•0	5•0	3	9	3	1
***	MN	102A VALLERS-WINGER	SICL	5 151 M	WEIMERSKIRCH	478001	PAV12	MN83010 WLDF	*84	1•0	5•0	9	9	3	1
***	MN	102A VALLERS-WINGER	SICL	5 151 M	WEIMERSKIRCH	478001	PAV12	MN83010 WLDF	*86	1•0	5•0	70	3	7	3
***	MN	102A VALLERS-WINGER	SICL	5 151 M	WEIMERSKIRCH	478001	PAV12	MN83010 WLDF	*86	70	3	7	7	3	1
***	MN	102A BARVES	L	5 173 L	DENEKAMP	478001	PAV12	MN78013 PAST	*80	6•0	7•0	2	5	1	3
***	MN	102A BARVES	L	5 173 L	DENEKAMP	478001	PAV12	MN78013 PAST	*81	6•0	7•0	5	5	1	3
***	MN	102A BARNES	L	5 173 L	DENEKAMP	478001	PAV12	MN78013 PAST	*82	6•0	7•0	2	3	1	3
***	MN	102A BARNES	L	5 173 L	DENEKAMP	478001	PAV12	MN78013 PAST	*83	6•0	7•0	4	5	1	3
***	MN	102A BARNES	L	5 173 L	DENEKAMP	478001	PAV12	MN78013 PAST	*84	6•0	7•0	7	5	3	1
***	MN	102A BARNES	L	5 173 L	DENEKAMP	478001	PAV12	MN78013 PAST	*85	6•0	7•0	5	5	5	1
***	MN	102A BARNES	L	5 173 L	DENEKAMP	478001	PAV12	MN78013 PAST	*85	6•0	7•0	5	5	5	1
***	MN	102 VES-STORDEN	L	5 173 G	PETTERSON	478001	PAV12	MN85032 EACW	*85	*1	10•0	0	4	5	1
***	MN	102 VES-STORDEN	L	5 173 G	PETTERSON	478001	PAV12	MN85032 EACW	*86	*1	10•0	3	9	7	1
***	MN	102A FLOHOR3JSE-BARNE	L	5 173 L	DENEKAMP	315658 ANGE		MN86001 SDIN	*86	1•0	7•7	45	7	7	1
***	MN	103	L	6 13 C	SHOUTS	478001	PAV12	MN81017 WLDF	*81	3•0	5•0	7	7	7	1
***	MN	103	L	6 13 C	SHOUTS	478001	PAV12	MN81017 WLDF	*82	3•0	5•0	6	5	3	1
***	MN	103	L	6 13 C	SHOUTS	478001	PAV12	MN81017 WLDF	*83	3•0	5•0	1	1	3	1
***	MN	103	L	6 13 C	SHOUTS	478001	PAV12	MN81017 WLDF	*84	3•0	5•0	1	1	3	1
***	MN	103 FEDJI	LFS	6 13 C	SHOUTS	478001	PAV12	MN81017 WLDF	*86	3•0	5•0	38	1	3	1
***	MN	103 BLUE EARTH COMFR	CLSI	6 13 M	BAKER	478001	PAV12	MN85036 WLDF	*86	1•5	5	17	5	7	3
***	MN	103 DORCHESTER	L	6 13 B.E. CO. PARKS DEPT		478001	PAV12	MN85037 WLDF	*86	3•0	5	5	3	3	A
***	MN	103 LESUEUR	CL	5 13 D	WINGERBERG	478001	PAV12	MN86018 WLDF	*86	4•7	5	12	3	1	4
***	MN	103 COLAND-TERRIL	CL	6 15 D	YOUNGERBERG	478001	PAV12	MN80038 PAST	*80	4•0	1	1	1	3	1
***	MN	103 COLAND-TERRIL	CL	6 15 D	YOUNGERBERG	478001	PAV12	MN80038 PAST	*81	4•0	1	1	1	3	1
***	MN	103 COLAND-TERRIL	CL	6 15 D	YOUNGERBERG	478001	PAV12	MN80038 PAST	*82	4•0	1	1	1	3	1
***	MN	103 COLAND-TERRIL	CL	6 15 D	YOUNGERBERG	478001	PAV12	MN80038 PAST	*83	4•0	1	1	1	3	1
***	MN	103 COLAND-TERRIL	CL	6 15 D	YOUNGERBERG	478001	PAV12	MN80038 PAST	*84	4•0	1	1	1	3	1
***	MN	103 MILLINGTON	CL	6 15 D	YOUNGERBERG	478001	PAV12	MN80038 PAST	*85	4•0	1	1	1	3	1
***	MN	103 MILLINGTON	CL	6 43 FARIBAULT CO. PARK		478001	PAV12	MN81012 SPEC	*82	5•0	7	3	1	3	1
***	MN	103 MILLINGTON	CL	6 43 FARIBAULT CO. PARK		478001	PAV12	MN81012 SPEC	*83	5•0	7	7	1	3	1
***	MN	103 MILLINGTON	CL	6 43 FARIBAULT CO. PARK		478001	PAV12	MN81012 SPEC	*84	5•0	5	1	1	3	1
***	MN	103 MILLINGTON	CL	6 43 FARIBAULT CO. PARK		478001	PAV12	MN81012 SPEC	*85	5•0	24	3	3	3	1
***	MN	103 MILLINGTON	CL	6 43 FARIBAULT CITY PARKS		478001	PAV12	MN81012 WLDF	*85	24	3	3	3	3	1

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
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ST	MLRA	SOIL SERIES	TEXT	AREA	NUM	COOPERATOR	001	002	502	FIELD	PLANT	FIELD	517	801	531	523	830	833	821	910	713		
							ACCN	SYMBOL	PLNT	NO	PURP	RC	YR	AMT	SD	SD	ACRE	RATE	VIS	VIG	WDC	ADPT	STAT
*	MN	103	MUSKEGO MUCK		6	43 J TRIO	464583	SECE	MN85046	COCR	*85	2.0	5.6	390	3	3	3	3	1	3	3	1	
*	MN	102	STORDEY-WEBSTER	CL	6	67 WILMAR ST JR COLLEG	478006	SONU2	MN70012	*73	1	1	1	1	1	1	1	1	1	1	1	3 A	
*	MN	102	SUNBURG	FSL	6	67 D FOSSO	478001	PAV12	MN85040	TERR	*85	*3	2.0		1	1	1	1	1	1	1	3 A	
*	MN	102	SUNBURG	FSL	6	67 D FOSSO	478001	PAV12	MN85040	TERR	*86	*3	2.0	40	1	1	1	1	1	1	1	3 A	
*	MN	103	SUNBURG-WADENIL	FSL	6	67 J WILLIAMSON	478001	PAV12	MN85041	TERR	*85	*5	2.0	500	1	1	1	1	1	1	1	3 A	
*	MN	103	SUNBURG-WADENIL	FSL	6	67 J WILLIAMSON	478001	PAV12	MN85041	TERR	*86	*5	2.0		3	3	3	3	3	3	3 A		
*	MN	102A	SUNBURG WADENIL	CL	6	67 KANDIYOH CO DEPT	478001	PAV12	MN86019	CARD	*86	*5	2.0		3	3	3	3	3	3	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315558	ANGE	MN81013	*82	4.0	7.0	1	1	1	1	1	1	1	1	1		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013	*83	4.0	7.0	1	1	1	1	1	1	1	1	1		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013	*84	4.0	7.0	1	1	1	1	1	1	1	1	1		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013	*85	4.0	7.0	1	1	1	1	1	1	1	1	1		
*	MN	103	CANISTED	C	6	85 GLENCOE PUBLIC SCH•	478001	PAV12	MN81013	SPEC	*82	4.0	10.0	1	1	1	1	1	1	1	1	3 A	
*	MN	103	CANISTED	C	6	85 GLENCOE PUBLIC SCH•	478001	PAV12	MN81013	SPEC	*83	4.0	10.0	4	1	1	1	1	1	1	1	3 A	
*	MN	103	CANISTED	C	6	85 GLENCOE PUBLIC SCH•	478001	PAV12	MN81013	SPEC	*84	4.0	10.0	3	1	1	1	1	1	1	1	3 A	
*	MN	103	CANISTED	C	6	85 GLENCOE PUBLIC SCH•	478001	PAV12	MN81013	SPEC	*85	4.0	10.0	8	1	1	1	1	1	1	1	3 A	
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478001	PAV12	MN81013	*85	4.0	10.0	8	1	1	1	1	1	1	1	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478006	SONU2	MN81013	*82	4.0	8	3	3	3	3	3	3	3	3	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478006	SONU2	MN81013	*83	4.0	8	3	3	3	3	3	3	3	3	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478001	PAV12	MN86037	WLDF	*86	12.8	6.0	6.0	0	0	3	1	4	1	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478001	PAV12	MN79007	WLDF	*80	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478001	PAV12	MN79007	WLDF	*81	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478001	PAV12	MN79007	WLDF	*82	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478001	PAV12	MN79007	WLDF	*83	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478001	PAV12	MN79007	WLDF	*84	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	478001	PAV12	MN79007	WLDF	*85	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CLARION	L	5	85 MN DNR	478001	PAV12	MN86037	WLDF	*86	12.8	6.0	6.0	0	0	3	1	4	1	3 A		
*	MN	103	CLARION	SCL	6	93 E POUSI	478001	PAV12	MN79007	WLDF	*80	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CLARION	SCL	6	93 E POUSI	478001	PAV12	MN79007	WLDF	*81	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CLARION	SCL	6	93 E POUSI	478001	PAV12	MN79007	WLDF	*82	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CLARION	SCL	6	93 E POUSI	478001	PAV12	MN79007	WLDF	*83	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CLARION	SCL	6	93 E POUSI	478001	PAV12	MN79007	WLDF	*84	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	CLARION	SCL	6	93 E POUSI	478001	PAV12	MN79007	WLDF	*85	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN80035	WLDF	*81	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN80035	WLDF	*82	5=0	5	3	3	3	3	3	3	3	3 A		
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN80035	WLDF	*83	5=0	1	1	1	1	1	1	1	3 A			
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN80035	WLDF	*84	5=0	3	1	1	1	1	1	1	3 A			
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN80035	WLDF	*85	5=0	150	5	3	3	3	3	3	3	3 A		
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN80035	WLDF	*85	150	5	3	3	3	3	3	3	3 A			
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN82013	WLDF	*82	6.0	1	3	1	1	1	1	1	3 A			
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN82013	WLDF	*83	6.0	3	1	1	1	1	1	1	3 A			
*	MN	103	LESTER-JEBOSTER	SCL	5	93 USDI-F&WS	478001	PAV12	MN82013	WLDF	*84	6.0	3	1	1	1	1	1	1	3 A			

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
10/27/1987

*	504	506	507	509	711	505	503	001	002	502	FIELD	517	801	531	523	830	833	821	910	713	
ST	MRA	SOIL	SERIES	TEXT	AREA	CNT	COOPERATOR	ACCN	PLANT	NUMBER	SYMBOL	PLNT NO	PJRP	RC	ACRE	RATE	VIS	VIG	WDC	ADPT	STAT
***	MN	103	NICOLLET-CANISTE	6 .93	USDI-FWS	478001	PAV12	MN82013	WLDF	*85	6.0	300	1	1	1	1	1	1	1	1	
***	MN	103	NICOLLET-CANISTE	6 93	USDI-FWS	478001	PAV12	MN82013	SDIN	*85	6.0	300	1	1	1	1	1	1	1	1	
***	MN	103	NICOLLET-CANISTE	6 93	USDI-FWS	478001	PAV12	MN82013	WLDF	*85	6.0	30	7	5	7	1	1	1	1		
***	MN	103	NICOLLET-CANISTE	6 93	USDI-FWS	478001	PAV12	MN82013	SDIN	*85	30	7	5	7	1	1	1	1	1		
***	MN	093	LESTER	6 93	J OSTLUND	478001	PAV12	MN83018	SPEC	*83	1.0	7	3	3	3	1	1	1	1		
***	MN	093	LESTER	6 93	J OSTLUND	478001	PAV12	MN83018	SPEC	*84	1.0	6	5	1	1	1	1	1	1		
***	MN	103	LESTER	6 93	J OSTLUND	478001	PAV12	MN83018	TERR	*85	63	3	3	3	1	1	1	1	1		
***	MN	103	LESTER	6 93	J OSTLUND	478001	PAV12	MN83018	SPEC	*85	1.0	63	3	3	3	1	1	1	1		
***	MN	093	LESTER	6 93	J OSTLUND	478001	PAV12	MN83018	SPEC	*85	1.0	63	3	3	3	1	1	1	1		
***	MN	103	LESTER	6 97	LE SUEUR PARK	315658	ANGEL	MN82015	WLDF	*85	2	5	3	5	1	1	1	1	1		
***	MN	103	LESTER	6 97	LE SUEUR PARK	476980	BOCU	MN82015	WLDF	*85	0	3	3	5	1	1	1	1	1		
***	MN	103	LESTER	6 97	LE SUEUR PARK	478001	PAV12	MN82015	WLDF	*85	1	3	1	1	1	1	1	1	1		
***	MN	103	LESTER	6 97	LE SUEUR PARK	478005	SONU2	MN82015	WLDF	*85	0	3	3	5	1	1	1	1	1		
***	MN	103	LESTER	6 103	LE SUEUR PARK	315658	ANGE	MN82015	WLDF	*84	3.0	3.0	1	1	1	1	1	1	1		
***	MN	103	LESTER	6 103	LE SUEUR PARK	478001	PAV12	MN82015	WLDF	*85	3.0	3.0	2	5	1	1	1	1	1		
***	MN	103	LESTER	6 103	LE SUEUR PARK	478001	PAV12	MN82015	SPEC	*82	3.0	10.0	3	2	3	3	1	1	1		
***	MN	103	LESTER	6 103	LE SUEUR PARK	478001	PAV12	MN82015	SPEC	*83	3.0	10.0	2	4	1	1	1	1	1		
***	MN	103	LESTER	6 103	LE SUEUR PARK	478001	PAV12	MN82015	SPEC	*84	3.0	10.0	2	1	1	1	1	1	1		
***	MN	103	LESTER	6 103	LE SUEUR PARK	478001	PAV12	MN82015	SPEC	*85	3.0	10.0	1	3	1	1	1	1	1		
***	MN	103	LESTER	6 103	LE SUEUR PARK	478006	SONU2	MN82015	WLDF	*84	3.0	10.0	9	5	1	1	1	1	1		
***	MN	103	LESTER	6 103	LE SUEUR PARK	478006	SONU2	MN82015	WLDF	*85	3.0	10.0	0	3	5	1	1	1	1		
***	MN	103	GLENCOE	6 161	UM SOUTH EXP. STA.	315658	ANGE	MN81014	*81	1.0	4	1	1	1	1	1	1	1	1		
***	MN	103	GLENCOE	6 161	UM SO EXP STA.	478001	PAV12	MN81014	SPEC	*82	1.0	2.0	5	1	1	1	1	1	1		
***	MN	103	GLENCOE	6 161	UM SO EXP STA.	478001	PAV12	MN81014	SPEC	*84	1.0	2.0	1	1	1	1	1	1	1		
***	MN	103	GLENCOE	6 161	UM SO EXP STA.	478001	PAV12	MN81014	SPEC	*85	1.0	2.0	1	1	1	1	1	1	1		
***	MN	103	COMFREY	6 165	V MONSON	478006	SONU2	MN81014	*81	1.0	8	1	1	1	1	1	1	1	1		
***	MN	103	DARFUR-FIELDON	6 165	4N DNR-TIERNEY UNIT	478001	PAV12	MN76015	PAST	*85	95	5	5	3	1	3	1	3	1		
***	MN	103	DARFUR-FIELDON	6 165	4N DNR-TIERNEY UNIT	478001	PAV12	MN79008	WLDF	*80	5.0	5.0	6	3	3	1	3	1	3		
***	MN	103	DARFUR-FIELDON	6 165	4N DNR-TIERNEY UNIT	478001	PAV12	MN79008	WLDF	*81	5.0	5.0	4	3	3	1	3	1	3		
***	MN	103	DARFUR-FIELDON	6 165	4N DNR-TIERNEY UNIT	478001	PAV12	MN79008	WLDF	*82	5.0	5.0	3	3	1	3	1	3	1		
***	MN	103	DARFUR-FIELDON	6 165	4N DNR-TIERNEY UNIT	478001	PAV12	MN79008	WLDF	*83	5.0	5.0	2	1	3	1	3	1	3		
***	MN	103	DARFUR-FIELDON	6 165	4N DNR-TIERNEY UNIT	478001	PAV12	MN79008	WLDF	*84	5.0	5.0	2	1	3	1	3	1	3		
***	MN	103	DARFUR-FIELDON	6 165	4N DNR-TIERNEY UNIT	478001	PAV12	MN79008	WLDF	*85	5.0	5.0	1	1	1	1	1	1	1		
***	MN	103	DARFUR-FIELDON	6 165	4N DNR-TIERNEY UNIT	478001	PAV12	MN79008	WLDF	*85	5.0	5.0	1	1	1	1	1	1	1		
***	MN	103	HANSKA	6 165	FARMLAND RES UNIT	478001	PAV12	MN79009	WLDF	*85	177	5	1	1	1	1	1	1	1		
***	MN	103	LITCHFIELD	6 165	MN DNR	478001	PAV12	MN79010	WLDF	*80	1.0	5.0	3	3	1	1	1	1	1		

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
10/27/1987

ST	MLRA	SOIL SERIES	TEXT AREA	NUM COOPERATOR	001 ACCN NUMBER	002 ACCN NUMBER	001 FIELD PLNT NO	002 FIELD PLNT NO	001 YR AMT RC	002 YR AMT RC	523 SD ACRE RATE	830 SD ACRE RATE	833 STD ACRE RATE	821 STD ACRE RATE	910 STD ACRE RATE	713 STD ACRE RATE	ADPT STAT	
*	MN	103	LITCHFIELD	L	6	165	MN	DNR	478001	PAV12	MN79010	WLDF	*81	1.0	5.0	2	1	3
*	MN	103	LITCHFIELD	L	6	165	MN	DNR	478001	PAV12	MN79010	WLDF	*82	1.0	5.0	3	3	3
*	MN	103	LITCHFIELD	L	6	165	MN	DNR	478001	PAV12	MN79010	WLDF	*83	1.0	5.0	2	3	3
*	MN	103	LITCHFIELD	L	6	165	MN	DNR	478001	PAV12	MN79010	WLDF	*84	1.0	5.0	2	5	3
*	MN	103	LITCHFIELD	L	6	165	MN	DNR	478001	PAV12	MN79010	WLDF	*85	1.0	5.0	390	5	1
*	MN	103	LITCHFIELD	L	6	165	MN	DNR	478001	PAV12	MN79010	WLDF	*85	1.0	5.0	390	3	1
*	MN	103	L-CL	L-CL	6	165	R	HJLMQUIST	478001	PAV12	MN85039	TERR	*85	*5	1.0	10	7	4
*	MN	103	L-CL	L-CL	6	165	R	HJLMQUIST	478001	PAV12	MN85039	TERR	*86	*5	1.0	30	5	3
*	MN	103	NICOLLET	CL	7	47	H	SCHMIDT	478001	PAV12	MN79011	WLDF	*80	1.0	6.0	9	1	1
*	MN	103	NICOLLET	CL	7	47	H	SCHMIDT	478001	PAV12	MN79011	WLDF	*81	1.0	6.0	5	3	1
*	MN	103	NICOLLET	CL	7	47	H	SCHMIDT	478001	PAV12	MN79011	WLDF	*82	1.0	6.0	1	1	3
*	MN	103	NICOLLET	CL	7	47	H	SCHMIDT	478001	PAV12	MN79011	WLDF	*83	1.0	6.0	1	1	3
*	MN	103	NICOLLET	CL	7	47	H	SCHMIDT	478001	PAV12	MN79011	WLDF	*84	1.0	6.0	7	3	3
*	MN	103	NICOLLET	CL	7	47	H	SCHMIDT	478001	PAV12	MN79011	WLDF	*85	1.0	6.0	10	1	3
*	MN	105	ESTHERVILLE	L	7	49	GOODHUE	CO	HIGHWAY	D	476980	BOCU	MN81016	CARD	*85	5	7	3
*	MN	105	MT CARROLL & FRANK	SIL	7	55	R	KOLSRUD	478001	PAV12	MN81016	CARD	*85	1	3	7	3	1
*	MN	099	SARGEANT	SIL	7	99	HORMEL	NATURE	CTR	478001	PAV12	MN86026	SDIN	*86	31.5	9.5	5	1
*	MN	099	SARGEANT	SIL	7	99	HORMEL	NATURE	CTR	478001	PAV12	MN78019	SPEC	*81	6.0	2.0	9	3
*	MN	099	SARGEANT	SIL	7	99	HORMEL	NATURE	CTR	478001	PAV12	MN78019	SPEC	*82	6.0	2.0	9	3
*	MN	099	SARGEANT	SIL	7	99	HORMEL	NATURE	CTR	478001	PAV12	MN78019	SPEC	*83	6.0	2.0	4	1
*	MN	105	ESTHERVILLE	L	7	105	GOODHUE	CO.	Hwy. DEPT.	478001	PAV12	MN78019	SPEC	*84	6.0	2.0	1	1
*	MN	105	ESTHERVILLE	L	7	105	GOODHUE	CO.	Hwy. DEPT.	478001	PAV12	MN81016	SPEC	*81	1.0	2.0	5	3
*	MN	105	ESTHERVILLE	L	7	105	GOODHUE	CO.	Hwy. DEPT.	478001	PAV12	MN81016	SPEC	*83	1.0	2.0	5	3
*	MN	105	ESTHERVILLE	L	7	105	GOODHUE	CO.	Hwy. DEPT.	478001	PAV12	MN81016	SPEC	*84	1.0	2.0	5	3
*	MN	105	ESTHERVILLE	L	7	105	GOODHUE	CO.	Hwy. DEPT.	478001	PAV12	MN81016	SPEC	*85	1.0	2.0	1	3
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	478001	PAV12	MN81015	ANGE	*81	2.0	3.0	4	3
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	315658	ANGE	MN81015	*82	2.0	3.0	4	5	3
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	315658	ANGE	MN81015	*82	2.0	3.0	4	5	3
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	315658	ANGE	MN81015	*83	2.0	3.0	6	3	1
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	315658	ANGE	MN81015	*84	2.0	3.0	3	5	1
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	315658	ANGE	MN81015	*85	2.0	3.0	1	9	1
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	315658	ANGE	MN81015	*85	2.0	10.0	4	5	1
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	478001	PAV12	MN81015	*81	2.0	10.0	4	3	1
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	478001	PAV12	MN81015	*82	2.0	10.0	9	5	1
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	478001	PAV12	MN81015	*83	2.0	10.0	8	1	3
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CTR.	478001	PAV12	MN81015	*84	2.0	10.0	9	5	1

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF HERBACEOUS FIELD PLANTINGS IN MINNESOTA
10/27/1987

ST	MLRA	SOIL SERIES	504	506	507	509	711	505	503	001	002	502	FIELD	517	801	531	523	830	833	821	910	713	
			SOIL	ADM	CNT	TEXT	AREA	NUM	COOPERATOR	ACCN	PLANT	SYM30L	PLNT	NO	PURP	RC	ACRE	RATE	VIS	VIG	WDC	ADPT	STAT
*	MN	103	ESTERVILLE	SL	7	131	FARIBAULT	INT.CTR.	478001	PAV12	MN81015	WLD	*85	2.0	10.0	1	9	5	9	1			
*	MN	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.CTR.	478001	PAV12	MN81015	WLD	*85	2.0	10.0	1	9	5	9	1			
*	MN	ESTHERVILLE	SL	7	131	FARIBAULT	INT. CTR.	478006	SONU2	MN81015	*81	2.0	3.0	8									
*	MN	ESTHERVILLE	SL	7	131	FARIBAULT	INT. CTR.	478006	SONU2	MN81015	*82	2.0	3.0	9									
*	MN	ESTHERVILLE	SL	7	131	FARIBAULT	INT. CTR.	478006	SONU2	MN81015	*83	2.0	3.0	7									
*	4N	103	CLARION	L	7	147	J VOGT		315558	ANGE	MN86031	SDIN	*86	1.0	6.7	85		5	5	4			
*	4N	105	FAYETTE	SIL	7	157	MN DNR	FORESTRY	478001	PAV12	MN85042	STAB	*85	*1	2.5	1							
*	MN	105	FAYETTE	SIL	7	157	MN DNR	FORESTRY	478001	PAV12	MN85042	STAB	*86	*1	2.5	4							
*	MN	105	TAMA	SIL	7	169	F KULACK		478001	PAV12	MN76017	PAST	*80	1.0	5.0								
*	4N	105	TAMA	SIL	7	169	F KULACK		478001	PAV12	MN76017	PAST	*81	1.0	5.0	9							
*	MN	105	TAMA	SIL	7	169	F KULACK		478001	PAV12	MN76017	PAST	*82	1.0	5.0	9							
*	MN	105	TAMA	SIL	7	169	F KULACK		478001	PAV12	MN76017	PAST	*83	1.0	5.0	9							
*	MN	105	TAMA	SIL	7	169	F KULACK		478001	PAV12	MN76017	PAST	*84	1.0	5.0	8							
*	MN	105	TAMA	SIL	7	169	F KULACK		478001	PAV12	MN76017	PAST	*85	1.0	5.0	82							
*	MN	105	TAMA	SIL	7	169	F KULACK		478001	PAV12	MN76017	PAST	*85	1.0	5.0	82							
*	MN	105	TAMA	SIL	7	169	F KULACK		478006	SONU2	MN76017	PAST	*80	1.0	5.0	9							
*	4N	105	TAMA	SIL	7	169	F KULACK		478006	SONU2	MN76017	PAST	*80	1.0	5.0	9							
*	MN	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT.	315658	ANGE	MN78018	WLD	*80	3.0	2								
*	4N	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT.	315658	ANGE	MN78018	WLD	*81	3.0	2								
*	MN	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT. UNI	478001	PAV12	MN78018	WLD	*80	3.0	10.0	2							
*	MN	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT. UNI	478001	PAV12	MN78018	WLD	*81	3.0	10.0	2							
*	MN	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT. UNI	478001	PAV12	MN78018	WLD	*82	3.0	10.0	2							
*	MN	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT. UNI	478001	PAV12	MN78018	WLD	*83	3.0	10.0	2							
*	MN	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT. UNI	478001	PAV12	MN78018	WLD	*84	3.0	10.0	1							
*	4N	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT. UNI	478001	PAV12	MN78018	WLD	*85	3.0	10.0	1							
*	MN	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT. UNI	478001	PAV12	MN78018	WLD	*85	3.0	10.0	241							
*	4N	105	O'NEILL	SL	7	169	MN DNR	WLD. MGMT. UNI	478001	PAV12	MN78018	WLD	*85	3.0	10.0	241							
*	MN	105	O'NEILL	SL	7	169	MN DNR	WLD. MGT. ELBA	478006	SONU2	MN78018	WLD	*80	3.0	6.0	1							
*	4N	105	O'NEILL	SL	7	169	MN DNR	WLD. MGT. ELBA	478006	SONU2	MN78018	WLD	*81	3.0	6.0	1							

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY JF • BONILLA • BIG BLUESTEM FIELD) PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT	AREA	NUM	COOPERATOR	001	002	502	517	901	531	523	830	833	821	910	713	
							ACCN	PLANT	FIELD	YR	AMT	SJ	STD	ACRE	RATE	VIS	WDC	ADPT	STAT
*	MN	057	MENAHGA	LS	1	29 B MYERS	315558	ANGE	MN78001	*	79	2•0	1	2					1
*	MN	102	TARA-DOLAND, BUSE	SICL	2	149 USDI-FWS	315558	ANGE	MN78008	*	81	4•0	3•0	7	1	3	1	3	1
*	MN	102	TARA-DOLAND, BUSE	SICL	2	149 USDI-FWS	315658	ANGE	MN78008	*	82	4•0	3•0	2	1	3	1	3	1
*	MN	102A	FARMDALE	CL	2	149 USDI-FWS	315658	ANGE	MN83006	WLDF	*	84	10•0	4	1	3	3	1	
*	MN	102A	FARMDALE	CL	2	149 USDI-FWS	315658	ANGE	MN83006	WLDF	*	85	10•0	10•0	7	1	5	1	
*	MN	102A	FARMDALE	CL	2	149 USDI-FWS	315658	ANGE	MN83006	WLDF	*	85	10•0	10•0	7	1	5	1	
*	MN	091	ZIMMERMAN	FS	4	3 CARLOS AVERY GAME	315558	ANGE	MN77005	*	78	1•0	5•0	3	3	1	1	1	
*	MN	091	ZIMMERMAN	FS	4	3 CARLOS AVERY GAME	315558	ANGE	MN77005	*	80	1•0	5•0	2	2	1	1	1	
*	MN	102A	ARVILLA	SL	5	73 D TAYLOR	315658	ANGE	MN83011	RNGE	*	81	10•0	3	1	3	1		
*	MN	102A	ARVILLA	SL	5	73 D TAYLOR	315658	ANGE	MN83011	RNGE	*	83	10•0	4	1	3	1		
*	MN	102A	ARVILLA	SL	5	73 D TAYLOR	315658	ANGE	MN83011	RNGE	*	84	10•0	4	1	3	1		
*	MN	102A	ARVILLA	SL	5	73 D TAYLOR	315658	ANGE	MN83011	RNGE	*	85	10•0	7	3	3	1		
*	MN	102A	ARVILLA	SL	5	73 D TAYLOR	315658	ANGE	MN83011	RNGE	*	85	10•0	7	3	3	1		
*	MN	102A	TERRIL	L	5	73 LAC QUI PARLE ST PK	315658	ANGE	MN83012	WLDF	*	83	5•0	2•0	8	9	3	1	
*	MN	102A	TERRIL	L	5	73 LAC QUI PARLE ST PK	315658	ANGE	MN83012	WLDF	*	84	5•0	2•0	5	5	9	1	
*	MN	102A	TERRIL	L	5	73 LAC QUI PARLE ST PK	315658	ANGE	MN83012	WLDF	*	85	5•0	2•0	5	5	3	1	
*	MN	102A	TERRIL	L	5	73 LAC QUI PARLE ST PK	315658	ANGE	MN83012	WLDF	*	85	5•0	2•0	3	3	3	1	
*	MN	102A	TERRIL	L	5	73 LAC QUI PARLE ST PK	315658	ANGE	MN83012	WLDF	*	85	5•0	2•0	3	3	3	1	
*	MN	102A	TERRIL	L	5	73 LAC QUI PARLE ST PK	315658	ANGE	MN83012	WLDF	*	85	5•0	2•0	3	3	3	1	
*	MN	102A	TERRIL	L	5	73 LAC QUI PARLE ST PK	315658	ANGE	MN83012	WLDF	*	85	5•0	2•0	3	3	3	1	
*	MN	102A	SVERDRUP	SL	5	73 G LARSON	315658	ANGE	MN83013	RNGE	*	83	7•0	2•0	4	3	3	1	
*	MN	102A	SVERDRUP	SL	5	73 G LARSON	315658	ANGE	MN83013	RNGE	*	84	7•0	2•0	6	3	3	1	
*	MN	102A	SVERDRUP	SL	5	73 G LARSON	315658	ANGE	MN83013	RNGE	*	85	7•0	2•0	1	1	5	1	
*	MN	102A	SVERDRUP	SL	5	73 G LARSON	315658	ANGE	MN83013	RNGE	*	85	7•0	2•0	1	1	5	1	
*	MN	102A	FLOMBJUSE-BARNE	L	5	173 L DENEKAMP	315658	ANGE	MN86001	SDIN	*	86	1•0	7•7	45	7	1	4	
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013										
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013		*	82	4•0	7•0	1	5	3	1	
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013		*	83	4•0	7•0	5	3	3	1	
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013		*	84	4•0	7•0	9	3	3	1	
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013		*	85	4•0	7•0	2	3	5	1	
*	MN	103	CANISTED	CL	6	85 GLENCOE PUBLIC SCHO0	315658	ANGE	MN81013		*	85	4•0	7•0	2	3	5	1	
*	MN	103	LESTER	CL	6	97 LE SUEUR PARK	315658	ANGE	MN82015	WLDF	*	85	4•0	7•0	2	3	5	1	
*	MN	103	LESTER	CL	6	97 LE SUEUR PARK	315658	ANGE	MN82015	WLDF	*	85	4•0	7•0	2	3	5	1	
*	MN	103	LESTER	CL	5	103 LE SUEUR PARK	315558	ANGE	MN82015	WLDF	*	84	3•0	3•0	3	1	1	3	

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

Legend:

- 505 CNT NUM (FIPS County Code)
- 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
- 517 PURP (Purpose)
- 801 YR RC (Year of record)
- 531 AMT ACRE (Number of acres)
- 523 SD RATE (Seeding rate)
- 830 STD VIS (Visual rating of stand or plants per square yard)

833 VIG (Plant vigor)
821 WDC (Weed competition)
910 ADPT (Adaptation to site)
713 STAT (Status: active, inactive, terminated)

A SUMMARY OF '30N11-A' BIG BLUESTEM FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT	AREA	NUM	COOPERATOR	SOIL	CL	6 103	LESJEUR PARK	315558	ANGE	MN82015	WLDF	*85	3.0	2	5	3	5	1
*	*	*	*	*	*	*	*	*	6 151	UM SOUTH EXP.	STA.	315558	ANGE	MN81014	*	81	1.0	4	1	1	1
*	4N	103	LESTER	SL	7	131	FARIBAULT	INT	CIR.	315658	ANGE	MN81015	WLDF	*	81	2.0	3.0	4	3	3	1
*	4N	103	SLEVOE	SL	7	131	FARIBAULT	INT.	CIR.	315658	ANGE	MN81015	WLDF	*	81	2.0	3.0	4	5	3	1
*	4N	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CIR.	315658	ANGE	MN81015	WLDF	*	82	2.0	3.0	4	5	3	1
*	4N	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CIR.	315658	ANGE	MN81015	WLDF	*	82	2.0	3.0	4	5	3	1
*	4N	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CIR.	315658	ANGE	MN81015	WLDF	*	83	2.0	3.0	6	3	1	3
*	4N	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CIR.	315658	ANGE	MN81015	WLDF	*	84	2.0	3.0	3	5	1	3
*	4N	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CIR.	315658	ANGE	MN81015	WLDF	*	85	2.0	3.0	1	3	5	1
*	4N	103	ESTHERVILLE	SL	7	131	FARIBAULT	INT.	CIR.	315658	ANGE	MN81015	WLDF	*	85	1	3	5	9	1	3
*	4N	103	CLARION	L	7	147	D VOGT	315658	ANGE	MN86031	SDIV	*86	1.0	6.0	7	85	5	5	3	4	1
*	4N	105	O'NEILL	SL	7	159	MN DNR	WLDF.	MGMT.	315658	ANGE	MN78018	WLDF	*80	3.0	2	3	1	3	1	3
*	4N	105	O'NEILL	SL	7	169	MN DNR	WLDF.	MGMT.	315658	ANGE	MN78018	WLDF	*81	3.0	2	3	1	3	1	3

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF VDG-4 BIG BLUESTEM FIELD PLANTINGS IN MINNESOTA
11/09/1987

1861/60/11

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Legend:	505 CNT NUM (FIPS County Code)	833 VIG (Plant vigor)
	502 FIELD PLNT NO (Field planting number: state, year planted, sequence)	821 WDC (Weed competition)
	517 PURP (Purpose)	910 ADPT (Adaptation to site)
	901 YR DC (Year of record)	713 STAT (Status: active, inactive, terminated)

833 VIG (Plant vigor)
821 WDC (Weed competition)

821 WDC (Weed Competition)
822 ADDT (Addition to)

910 ADPT (Adaptation to site)

801 YR RC (Year of record)
531 AMT ACRE (Number of acres)

Table 3. SD rate and seedling rate of *W. confertus* and *W. confertus* × *W. confertus* (cv. 'W. confertus')

821 WDC (Weed control 1100)

821 WDC (Weed Competition)
822 ADDT (Addition to)

910 ADPT (Adaptation to site)

713 STAT (Status: active, Inactive)

A SUMMARY OF INDIANGRASS (SORGHASTRUM NUTANS (L.) VASH) FIELD PLANTINGS IN MINNESOTA
11/03/1387

11/09/1387

2002 年度会計監査報告書

Second:

Legend: **505 CNT NUM** (FIPS County Code)

502 FIELD PLNT NO
517 PUPP (Purpose)

5.1 Purpose

801 YR RC (Year of record)
8531 AMT ACRE (Number of acres)

	ATL. AGR.	SD RATE	SEEDING RATE	NUMBER OF ACRES
5531				
5523				

833 VIG (Plant vigor)
821 WDC (Weed competition)
910 ADPT (Adaptation to site)

713 STAT (Status: active, inactive, terminated)

A SUMMARY OF INDIANGRASS (SORGHASTRUM NUTANS (L.) NASH) FIELD PLANTINGS IN MINNESOTA

11/09/1987

ST	MLRA	SOIL SERIES	TEXT AREA	NUM COOPERATOR	001 ACCN	002 PLANT	502 FIELD	517 FIELD	801 YR	531 AMT	523 STD	830 STD	821 STD	910 STD	713 STAT
*	*	*	*	*	NUMBER	SYMBOL	PLNT NO	PJRP RC	ACRE	RATE	VIS	WJC	ADPT	STAT	
*	4N	GLENCOE	SICL	6 161 UM SOUTH EXP. STA.	478006	SONU2	4N81014	*81	1.0	8	1	1	1	1	
*	4N	ESTHERVILLE	SL	7 131 FARIBAULT INT. CTR.	478006	SONU2	4N81015	*81	2.0	3.0	8	3	3	1	
*	4N	ESTHERVILLE	SL	7 131 FARIBAULT INT. CTR.	478006	SONU2	4N81015	*82	2.0	3.0	9	5	3	3	
*	4N	ESTHERVILLE	SL	7 131 FARIBAULT INT. CTR.	478006	SONU2	4N81015	*83	2.0	3.0	7	3	1	3	
*	4N	TAMA	SIL	7 159 F KULACK	478006	SONJ2	MN76017 PAST	*80	1.0	5.0	9	3	9	3	
*	4N	TAMA	SIL	7 159 F KULACK	478005	SONU2	MN76017 PAST	*81	1.0	5.0	9	3	9	3	
*	4N	105 O'NEILL	SL	7 159 MN JNR WLDF 4GT	478006	SONU2	MN78018 WLDF	*80	3.0	6.0	1	1	1	3	
*	4N	105 O'NEILL	SL	7 159 MN DJR WLDF 4GT	478006	SONU2	MN78018 WLDF	*81	3.0	6.0	1	1	1	3	

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF AROOSTOCK RYE (464583) FIELD PLANTINGS IN MINNESOTA
11/20/1987

*	504	506	507	509	711	505	503	001	002	502	517	801	531	523	830	833	821	910	713
	SOIL	ADM	CNT	SOIL	ADM	CNT	SOIL	ACCN	PLANT	FIELD	YR	AMT	SD	STD	SD	STD	SD	ADPT	STAT
ST	MLRA SOIL SERIES	TEXT	AREA NUM	COOPERATOR	NUMBER	SYMBOL	PLNT	VO	PURP	RC	ACRE	RATE	VIS	VIG	WDC	ADPT	STAT		
***	YN	103	MUSKEGO MUCK		6	43	J	TRIO	454583	SECE	MN85046	COCR	*85	2.0	5.6	390	3	3	1
	RATING SYSTEM	1=EXCELLENT	3=GOOD	5=FAIR	7=POOR	9=VERY POOR													

Legend:

- 505 CNT NUM (FIPS County Code)
- 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
- 517 PURP (Purpose)
- 801 YR RC (Year of record)
- 531 AMT ACRE (Number of acres)
- 523 SD RATE (Seeding rate)
- 830 STD VIS (Visual rating of stand or plants per square yard)
- 833 VIG (Plant vigor)
- 821 WDC (Weed competition)
- 910 ADPT (Adaptation to site)
- 713 STAT (Status: active, inactive, terminated)

A SUMMARY OF VU-75 PRAIRIE SANDBED FIELD PLANTINGS IN MINNESOTA

11/15/1987

	504	506	507	509	711	505	503	001	002	502	517	801	531	523	830	933	921	910	713			
ST	MLRA	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	ACCN	ACCN	FIELD	FIELD	YR	AMT	SD	SD	SD	SD	ADPT	STAT			
***	***	***	***	***	***	***	***	NUMBER	NUMBER	SYBL	SYBL	PLNT	PLNT	SYBL	SYBL	SYBL	SYBL	SYBL	SYBL			
*	YN	057	YN	057	YN	057	YN	2	21	DEEP	PORTAGE	CONS	RE	477393	CALO	MN84005	WLDIF	4				
*	YN	057	YN	057	YN	057	YN	2	21	DEEP	PORTAGE	CONS	RE	477393	CALO	MN84005	WLDIF	85				
*	YN	057	YN	057	YN	057	YN	2	21	DEEP	PORTAGE	CONS	RE	477393	CALO	MN84005	WLDIF	74				
CATING SYSTEM 1=EXCELLENT 5=GOOD 5=FAIR 7=POOR 9=VERY POOR																						
505 CNT NUM (FIPS County Code)	502 FIELD PLNT NO (Field planting number: state, year planted, sequence)	517 PURP (Purpose)	801 YR RC (Year of record)	531 AMT ACRE (Number of acres)	523 SD RATE (Seeding rate)	830 STD VIS (Visual rating of stand or plants per square yard)	833 VIG (Plant vigor)	821 WDC (Weed competition)	910 ADPT (Adaptation to site)	713 STAT (Status: active, inactive, terminated)												

Legend:

- 505 CNT NUM (FIPS County Code)
- 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
- 517 PURP (Purpose)
- 801 YR RC (Year of record)
- 531 AMT ACRE (Number of acres)
- 523 SD RATE (Seeding rate)
- 830 STD VIS (Visual rating of stand or plants per square yard)
- 833 VIG (Plant vigor)
- 821 WDC (Weed competition)
- 910 ADPT (Adaptation to site)
- 713 STAT (Status: active, inactive, terminated)

A SUMMARY OF U.S. - 95-93 SWEETGRASS FIELD PLANTINGS IN MINNESOTA
11/30/1987

504	506	507	509	711	505	503	001	002	502	517	801	531	523	830	833	821	910	713		
ST	MLRA	SOIL	SOIL	SOIL	SOIL	SOIL	ACCN	ACCN	FIELD	FIELD	PLNT	PLNT	PLNT	SD	SD	SD	SD	SD		
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NO	PJRP	RC	ACRE	RATE	VIS	WDC	ADPT	STAT	
MN	090	CUSHING	SL	97	MN	DNR	478002	478002	PAV12	PAV12	MN84008	*84	5.0	5.0	6	5	3	3	A	
MN	090	CUSHING	SL	97	MN	DNR	478002	478002	PAV12	PAV12	MN84008	*85	5.0	5.0	30	3	5	1	A	
MN	090	CUSHING	SL	97	MN	DNR	478002	478002	PAV12	PAV12	MN84008	*86	5.0	5.0	30	3	5	3	A	
MN	056	WAUKON	L	1	119	P KASTE	478002	478002	PAV12	PAV12	MN86047	SDIN	1.6	5.9	10	5	5	1	A	
MN	090	CHEICK	SL	2	21	CASS CNTY LAND DEPT	478002	478002	PAV12	PAV12	MN81005	WDF	*82	1.0	10.0	6	3	1	3	I
MN	090	CHEICK	SL	2	21	CASS CO. LAND DEPT.	478002	478002	PAV12	PAV12	MN81005	WDF	*83	1.0	10.0	5	3	1	3	I
MN	090	CHEICK	SL	2	21	CASS CO. LAND DEPT.	478002	478002	PAV12	PAV12	MN81005	WDF	*84	1.0	10.0	6	5	1	3	I
MN	090	CHEICK	SL	2	21	CASS CO. LAND DEPT.	478002	478002	PAV12	PAV12	MN81005	WDF	*85	1.0	10.0	3	5	1	3	I
MN	090	CHEICK	SL	2	21	CASS CNTY LAND DEPT	478002	478002	PAV12	PAV12	MN81005	WDF	*85	1.0	10.0	3	5	1	3	I
MN	090	CHEICK	SL	2	21	DEEP PORTAGE CONS RE	478002	478002	PAV12	PAV12	MN84005	WDF	*84	1.0	10.0	5	5	1	3	A
MN	057	HAMERLY	L	2	21	DEEP PORTAGE CONS.	478002	478002	PAV12	PAV12	MN84005	WDF	*85	1.0	10.0	4	3	5	7	A
MN	057	HAMERLY	L	2	21	DEEP PORTAGE CONS RE	478002	478002	PAV12	PAV12	MN84005	WDF	*85	1.0	10.0	4	3	5	7	A
MN	057	HAMERLY	L	2	21	DEEP PORTAGE CONS.	478002	478002	PAV12	PAV12	MN84005	WDF	*85	1.0	10.0	4	3	5	7	A
MN	057	HAMERLY	L	2	21	DEEP PORTAGE CONS.	478002	478002	PAV12	PAV12	MN84005	WDF	*86	1.0	10.0	15	5	7	5	A
MN	057	HAMERLY	L	2	21	DEEP PORTAGE CONS RE	478002	478002	PAV12	PAV12	MN84005	WDF	*86	1.0	10.0	15	5	7	5	A
MN	057	HAMERLY	L	2	27	USDI-FWS	478002	478002	PAV12	PAV12	MN81004	WDF	*83	2	1	1	1	1	3	I
MN	057	HAMERLY	L	2	27	USDI-FWS	478002	478002	PAV12	PAV12	MN81004	WDF	*84	1	1	1	1	1	3	I
MN	057	HAMERLY	L	2	27	USDI-FWS	478002	478002	PAV12	PAV12	MN81004	WDF	*85	470	1	1	1	1	3	I
MN	057	HAMERLY	L	2	27	USDI-FWS	478002	478002	PAV12	PAV12	MN81004	WDF	*85	470	1	1	1	1	3	I
MN	056	OVERLY	SICL	2	27	W OLSON	478002	478002	PAV12	PAV12	MN82009	SDIN	*85	1	1	1	1	1	3	I
MN	056	OVERLY	SICL	2	27	W OLSON	478002	478002	PAV12	PAV12	MN82009	SDIN	*82	10.0	5.0	1	5	3	3	I
MN	056	OVERLY	SICL	2	27	W OLSON	478002	478002	PAV12	PAV12	MN82009	SDIN	*83	10.0	5.0	1	3	3	3	I
MN	056	OVERLY	SICL	2	27	W OLSON	478002	478002	PAV12	PAV12	MN82009	SDIN	*84	10.0	5.0	1	3	3	3	I
MN	056	OVERLY	SICL	2	27	W OLSON	478002	478002	PAV12	PAV12	MN82009	SDIN	*85	10.0	5.0	150	1	3	1	I
MN	056	OVERLY	SICL	2	27	W OLSON	478002	478002	PAV12	PAV12	MN81003	WDF	*84	5.0	10.0	4	1	3	3	I
MN	056	OVERLY	SICL	2	27	W OLSON	478002	478002	PAV12	PAV12	MN81003	WDF	*85	5.0	10.0	40	5	5	3	I
MN	090	MENAHGA	LS	2	97	MN DNR	478002	478002	PAV12	PAV12	MN81003	WDF	*85	5.0	10.0	40	3	5	3	A
MN	090	MENAHGA	LS	2	97	MN DNR	478002	478002	PAV12	PAV12	MN81003	WDF	*85	40	3	5	5	3	A	
MN	090	MENAHGA	LS	2	97	MN DNR	478002	478002	PAV12	PAV12	MN84008	WDF	*86	30	3	5	3	3	A	
MN	090	CUSHING	SL	2	97	MINNESOTA DNR	478002	478002	PAV12	PAV12	MN84008	WDF	*86	30	3	5	3	3	A	
MN	090	CUSHING	SL	2	97	MINNESOTA DNR	478002	478002	PAV12	PAV12	MN78008	WDF	*82	400	500	5	7	3	I	
MN	102A	TARA, DLAND, BUSE	SICL	2	97	MINNESOTA DNR	478002	478002	PAV12	PAV12	MN78008	WDF	*82	400	500	5	7	3	I	
MN	102A	TARA, DLAND, BUSE	SICL	2	97	MINNESOTA DNR	478002	478002	PAV12	PAV12	MN78008	WDF	*82	400	500	5	7	3	I	
MN	102A	TARA, DLAND, BUSE	SICL	2	97	USDI-FWS	478002	478002	PAV12	PAV12	MN78008	WDF	*82	400	500	5	7	3	I	

ATINGS SYSTEM 1-FXCELL FNT 3-GOOD FAIR 7-POOR Q=VERY POOR

Legend:

Category	505 CNT NUM	(FIPS County Code)
502 FIELD PLNT NO	(Field plan	
617 PURP (Purpose)		
301 YR RC	(Year of record)	
531 ANT ACRE	(Number of acres)	
523 SD RATE	(Seeding rate)	
330 STD VIS	(Visual rating of	

8833	VIG	(Plant vigor)
8821	WDC	(Weed competiton)
8910	ADPT	(Adaptation to)
773	STAT	(Status: activity)

A SUMMARY OF VOG-365-98 SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	ILRA SOIL SERIES	TEXT AREA	SOIL ADJ	CNT	509	711	505	503	001	002	502	FIELD	517	901	531	523	830	833	821	910	713	
***	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	ACCN	ACCN	ACCN	PLANT	YR	AMT	SD	SD	STD	STD	STD	STD	STD	
***	SY430L	SY430L	SY430L	SY430L	SY430L	SY430L	SY430L	SY430L	PLNT	PLNT	PLNT	PLNT	YR	ACRE	RC	ACRE	RC	ACRE	RC	ACRE	RC	ACRE
*	4N	102	TARA, DOLAND, BUSE	SICL	2	149	USDI-FWS		478002	PAV12	4N780008	WLD	*83	4.0	5.0	5.0	8	7	1	3	1	
*	4N	102	TARA, DOLAND, BUSE	SICL	2	149	USDI-FWS		478002	PAV12	4N780008	WLD	*84	4.0	5.0	5.0	9	5	1	3	1	
*	4N	102	TARA, DOLAND, BUSE	SICL	2	149	USDI-FWS		478002	PAV12	4N780008	WLD	*85	4.0	5.0	5.0	3	5	5	3	1	
*	MN	102A	TARA, DOLAND, BUSE	SICL	2	149	USDI-FWS		478002	PAV12	4N780008	WLD	*85	4.0	5.0	5.0	3	5	5	3	1	
*	4N	391	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME	F	478002	PAV12	4N77005	WLD	*78	1.0	3.0	3.0	3	5	5	3	1	
*	4N	091	ZIMMERMAN	FS	4	3	CARLOS AVERY GAME	F	478002	PAV12	4N77005	WLD	*80	1.0	3.0	3.0	4	5	5	3	1	

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF FORESTBURG SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT AREA	YR	COOPERATOR	NUMBER	ACCN	PLANT	FIELD	FIELD NO	PJRP	RC	ACRE	RATE	VIS	VIG	WDC	ADPT	STAT
*	MN 057	MARQUETTE	1	29	B MYERS	478001	PAV12	MN78001	PAST	*80	3.0								1
*	MN 057	MARQUETTE	1	29	3 MYERS	478001	PAV12	MN78001	PAST	*82	3.0								1
*	NN 057	NEBISH	L	1	119 P OFSTEDAL	478001	PAV12	MN83003	WLDF	*84	4.0	5.0	6	5	1				1
*	NN 057	NEBISH	L	1	119 P OFSTEDAL	478001	PAV12	MN83003	WLDF	*85	4.0	6.0	30	5	5				3 1
*	NN 057	NEBISH	L	1	119 P OFSTEDAL	478001	PAV12	MN83003	WLDF	*85	4.0	6.0	30	5	5				3 1
*	NN 057	NEBISH	L	2	5 USDI-F&S	478001	PAV12	MN81004	WLDF	*83	5.0	4	3	3	3				3 1
*	NN 057	BARNES-LANGEI	L	2	5 USDI-F&S	478001	PAV12	MN81004	WLDF	*84	5.0	2	3	1	3	3			3 1
*	NN 057	BARNES-LANGEI	L	2	5 USDI-F&S	478001	PAV12	MN81004	WLDF	*85	5.0	380	3	5	5	5			3 1
*	NN 088	BRAINERD	SL	2	21 L KUSCHEL	478001	PAV12	MN75021	WLDF	*80	2	3	1						1
*	NN 088	BRAINERD	SL	2	21 L KUSCHEL	478001	PAV12	MN75021	PAST	*80	2	3	1						3 1
*	NN 088	BRAINERD	SL	2	21 L KUSCHEL	478001	PAV12	MN75021	PAST	*81	4	1							3 1
*	NN 088	BRAINERD	SL	2	21 L KUSCHEL	478001	PAV12	MN75021	PAST	*82	4								3 1
*	NN 088	BRAINERD	SL	2	21 L KUSCHEL	478001	PAV12	MN75021	PAST	*83	7	3							3 1
*	NN 088	BRAINERD	SL	2	21 L KUSCHEL	478001	PAV12	MN75021	PAST	*84	3	3							3 1
*	NN 088	BRAINERD	SL	2	21 L KUSCHEL	478001	PAV12	MN75021	PAST	*85	30	3	5	3	3				3 1
*	NN 088	BRAINERD	SL	2	21 L KUSCHEL	478001	PAV12	MN75021	PAST	*85	30	3	5	3	3				3 1
*	NN 090	CHECK	SL	2	21 CASS CNTY LAND DEPT	478001	PAV12	MN81005	WLDF	*85	2	5	3	5	5	1			4 8
*	NN 090	CHECK	SL	2	21 CASS CNTY LAND DEPT	478001	PAV12	MN81005	WLDF	*85	2	5	3	5	5	1			3 1
*	NN 057	HAMERLY	L	2	27 USDI-F&S	478001	PAV12	MN75021	PAST	*85	30	3	5	3	3				3 1
*	NN 057	HAMERLY	L	2	27 USDI-F&S	478001	PAV12	MN75021	PAST	*85	30	3	5	3	3				3 1
*	NN 056	DONALDSON	FSL	2	21 CASS CNTY LAND DEPT	478001	PAV12	MN81004	WLDF	*85	2	5	3	5	5	1			3 1
*	NN 056	DONALDSON	FSL	2	21 CASS CNTY LAND DEPT	478001	PAV12	MN81004	WLDF	*85	2	5	3	5	5	1			3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN78005	WLDF	*85	1.3	7.0	70	1	1				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN80501	SDIN	*85	1.3	7.0	70	1	1				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN80501	SDIN	*86	1.3	7.0	18	3	1				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN78005	WLDF	*85	380	3	5	3	3				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN78005	WLDF	*80	8.0	6.0	5	1	1				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN78005	WLDF	*81	8.0	5.0	5	1	1				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN78005	WLDF	*82	8.0	6.0	1	1	1				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN78005	WLDF	*83	8.0	6.0	1	1	1				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN78005	WLDF	*84	8.0	6.0	3	1	1				3 1
*	NN 102A	BARNES-ANGHEI	L	2	121 R TOLTMAN	478001	PAV12	MN78005	WLDF	*85	8.0	6.0	120	3	3				3 1
*	NN 102A	TARA, DOLAND, BUSE SICL	2	149 USDI-F&S	478001	PAV12	MN78005	WLDF	*85	120	3	3	1	1	1				3 1
*	NN 102A	TARA, DOLAND, BUSE SICL	2	149 USDI-F&S	478001	PAV12	MN78008	WLDF	*81	4.0	5.0	1		1					3 1
*	NN 102A	TARA, DOLAND, BUSE SICL	2	149 USDI-F&S	478001	PAV12	MN78008	WLDF	*82	4.0	5.0	3	7	3					3 1
*	NN 102A	TARA, DOLAND, BUSE SICL	2	149 USDI-F&S	478001	PAV12	MN78008	WLDF	*83	4.0	5.0	3	5	1					3 1
*	NN 102A	TARA, DOLAND, BUSE SICL	2	149 USDI-F&S	478001	PAV12	MN78008	WLDF	*84	4.0	5.0	4	1	1					3 1

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

Legend:

- 505 CNT NUM (FIPS County Code)
- 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
- 517 PURP (Purpose)
- 801 YR RC (Year of record)
- 531 AMT ACRE (Number of acres)
- 523 SD RATE (Seeding rate)
- 830 STD VIS (Visual rating of stand or plants per square yard)
- 833 VIG (Plant vigor)
- 821 WDC (Weed competition)
- 910 ADPT (Adaptation to site)
- 713 STAT (Status: active, inactive, terminated)

A SUMMARY OF FORESTBURG • SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	YLRA	SOIL	STRIES	SOIL	ADY	CNT	TEXT	AREA	NUM	COOPERATOR	001	002	FIELD	002	FIELD	017	801	531	523	830	833	821	910	713			
											ACCN	PLANT	SYMBOL	PLNT	NO	PURP	RC	YR	AMT	SD	SD	ACRE	RATE	VIS	WCC	ADPT	STAT
*	MN	102A	TARA•DOLAND•BUSE	SICL	2	149	USDI•FWS		478001	PAV12	MN780008	WLDF	*85			3	3	5	5	3	3	5	3	5	3	1	
*	MN	102A	TARA DOLAND BUSE	SICL	2	149	USDI-FWS		478001	PAV12	MN780008	WLDF	*85	4.0	5.0	5.0	5	3	5	5	3	5	3	5	3	1	
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI•FWS	MORRIS	478001	PAV12	MN82010	SDIV															1
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI-FWS		478001	PAV12	MN82010	WLDF	*83			5.0	4	2	5	5	3	3	5	3	1		
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI-FWS		478001	PAV12	MN82010	WLDF	*84			5.0	1	1	1	1	3	3	1	3	1		
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI•FWS	MORRIS	478001	PAV12	MN82010	SDIN	*85			100	1	1	3	1	1	3	1	1			
*	MN	102A	HAMERLY FARMDALE	CL	2	149	USDI-FWS		478001	PAV12	MN82010	WLDF	*85			5.0	100	1	3	1	1	3	1	1			
*	MN	091	ROCKWOOD	SL	2	159	M RUNYAN		478001	PAV12	MN86028	PAST	*86			5.0	200			3	5	4					
*	MN	091	UNIVERSVILLE	LS	2	159	R DALLMAN		478001	PAV12	MN86029	PAST	*86			5.0	6			3	7	4					
*	MN	088	NASHWAJK	VFSL	3	137	USD A-FOREST SERVICE		478001	PAV12	MN83008	PAST	*83	10.0	6.0	1	1	1	1	3	1	3	1	1	1		
*	MN	88	NASHWAJK	VFSL	3	137	USD A-FS		478001	PAV12	MN83008	PAST	*84	10.0	6.0	1	1	1	1	3	1	3	1	1	1		
*	MN	088	NASHWAJK	VFSL	3	137	USD A-FS		478001	PAV12	MN83008	PAST	*85	10.0	6.0	275	3	5	5	1	1	3	1	1	1		
*	MN	091	NYMORE	LS	4	3	ANOKA SR HIGH SCHOOL		478001	PAV12	MN83008	PAST	*85			275	3	5	5	1	1	3	1	1	1		
*	MN	091	NYMORE	LS	4	3	ANOKA SR•		478001	PAV12	MN72014	SPEC	*80			1.0	10.0	1	1	1	1	3	1	1	1		
*	MN	091	NYMORE	LS	4	3	ANOKA SR•		478001	PAV12	MN72014	SPEC	*81			1.0	10.0	2	1	1	1	3	1	1	1		
*	MN	091	NYMORE	LS	4	3	ANOKA SR•		478001	PAV12	MN72014	SPEC	*82			1.0	10.0	3	1	1	1	3	1	1	1		
*	MN	091	NYMORE	LS	4	3	ANOKA SR•		478001	PAV12	MN72014	SPEC	*83			1.0	10.0	1	1	1	1	3	1	1	1		
*	MN	091	NYMORE	LS	4	3	ANOKA SR•		478001	PAV12	MN72014	SPEC	*84			1.0	10.0	1	1	1	1	3	1	1	1		
*	MN	091	NYMORE	LS	4	3	ANOKA SR HIGH SCHOOL		478001	PAV12	MN72014	SPEC	*85			110	1	1	1	1	3	1	1	1			
*	MN	103	AYDEN	SL	4	139	S SCHUSTER		478001	PAV12	MN81001	WLDF	*81			3.0	7.0	9	1	1	1	3	1	1	1		
*	MN	103	AYDEN	SL	4	139	S SCHUSTER		478001	PAV12	MN81001	WLDF	*82			3.0	7.0	6	7	9	1	1	1	3	1		
*	MN	103	AYDEN	SL	4	139	S SCHUSTER		478001	PAV12	MN81001	WLDF	*83			3.0	7.0	7	7	9	1	1	1	3	1		
*	MN	103	AYDEN	SL	4	139	S SCHUSTER		478001	PAV12	MN81001	WLDF	*84			3.0	7.0	1	5	9	1	1	1	3	1		
*	MN	103	HUBBARD	FS	4	139	T KORNDER		478001	PAV12	MN81008	WIND														1	
*	MN	103	HUBBARD	FS	4	139	T KORNDER		478001	PAV12	MN81008	SPEC	*81			2										1	
*	MN	103	HUBBARD	FS	4	139	T KORNDER		478001	PAV12	MN81008	SPEC	*82			2									1		
*	MN	103	HUBBARD	FS	4	139	T KORNDER		478001	PAV12	MN81008	SPEC	*83			2									1		
*	MN	103	HUBBARD	FS	4	139	T KORNDER		478001	PAV12	MN81008	SPEC	*84			1									1		
*	MN	103	HUBBARD	FS	4	139	T KORNDER		478001	PAV12	MN81008	SPEC	*85			540	1	1	1	1	3	1	1	1	1		
*	MN	103	HUBBARD	FS	4	139	T KORNDER		478001	PAV12	MN81008	WIND	*85			540	1	1	1	1	3	1	1	1	1		
*	MN	103	HUBBARD	FS	4	139	E MULHAUSEN		478001	PAV12	MN81009	SPEC	*82			2									1		
*	MN	103	HAYDEN	SL	4	139	E MULHAUSEN		478001	PAV12	MN81009	SPEC	*83			3									1		
*	MN	103	HAYDEN	SL	4	139	J SHUSTER		478001	PAV12	MN81010	WLDF													1		

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF ESTIMATED SWITCHGRASS FIELD PLANNINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT	SOIL AREA	SOIL CNT	SOIL NUM	COOPERATOR	NUMBER	SY430J	PLNT	NO	PJRP	RC	ACRE	RATE	VIS	DOC	ADPT	STAFF
*	504	506	507	509	711	505	503	001	002	502	FIELD	517	801	531	523	833	821	910	713
*	MN	103	HAUGEN	SL	4	139	J SHUSTER	478001	PAV12	MN81010	WLDF	*85	50	5	7	3	1		
*	MN	103	WAUBEGAN-KASOTA	SIL	4	139	N SHUTROP	478001	PAV12	MN85049	WYD	*85	4.5	3	4.5	1	1		
*	MN	103	WAUBEGAN-KASOTA	SIL	4	139	N SAUTROP	478001	PAV12	MN85049	WYD	*86	4.5	3	5	7	7	3	4
*	MN	103	LESTER	SIL	4	139	J BISEK	478001	PAV12	MN85050	EACH	*86	4	8	0	1	1	0	4
*	MN	103	LESTER	SIL	4	139	J BISEK	478001	PAV12	MN85050	EACW	*86	4	8	40	5	5	5	3
*	MN	103	NORMANIA	L	4	145	G BRAUN	478001	PAV12	MN86041	TERR	*86	2	1.5	0	3	3	9	4
*	MN	103	NORMANIA	L	4	145	J MUELLER	478001	PAV12	MN86042	TERR	*86	2	1.5	0	3	3	9	4
*	MN	103	KORONIS	SL	4	145	J OLSON	478001	PAV12	MN86043	TERR	*86	1	1.5	1	1	1	9	4
*	MN	103	KORONIS	L	4	145	A LAHR	478001	PAV12	MN86044	TERR	*86	9	10.0	3	3	3	9	4
*	MN	103	COLAND-TERRIL	CL	5	15	D YOUNGERBERG	478001	PAV12	MN80038	PAST								
*	MN	103	COLAND-TERRIL	CL	5	15	D YOUNGERBERG	478001	PAV12	MN80038	PAST	*85	5	1.0	0	5	5	5	4
*	MN	102A	DOLAND-SWANLAK	SIL	5	23	G SONSTAGARD	478001	PAV12	MN85026	TERR	*85	5	1.0	170	3	3	5	4
*	MN	102A	DOLAND-SWANLAK	SIL	5	23	G SONSTAGARD	478001	PAV12	MN85026	TERR	*86	5	1.0	170	3	3	5	4
*	MN	102A	ROTHSAY-ZELL	SIL	5	23	A TOSTENSON	478001	PAV12	MN85027	TERR	*85	5	1.0	95	5	5	5	4
*	MN	102A	ROTHSAY-ZELL	SIL	5	23	A TOSTENSON	478001	PAV12	MN85027	TERR	*86	5	1.0	95	5	7	3	4
*	MN	103	ESTHerville BISC	SL	5	33	DNR WILDLIFE MANAGER	478001	PAV12	MN85035	WLDF	*85	3.6	8	10	7	7	1	4
*	MN	103	CLARION	L	5	33	H MULLER	478001	PAV12	MN86021	TERR	*86	2	1.5	6	3	3	4	-
*	MN	103	ESTHerville BISC	SL&L	5	33	H DNR	478001	PAV12	MN86040	WLDF	*86	3.0	9	5	1	1	3	4
*	MN	102A	TERRIL	L	5	73	LAC QUT PARLE ST. PK	478001	PAV12	MN83012	WLDF	*83	5.0	2.0	8	3	3	1	1
*	MN	102A	TERRIL	L	5	73	LAC QUI PARLE ST. PK	478001	PAV12	MN83012	WLDF	*84	5.0	2.0	4	3	3	1	1
*	MN	102A	TERRIL	L	5	73	LAC QUI PARLE ST. PK	478001	PAV12	MN83012	WLDF	*85	5.0	2.0	4	3	3	1	1
*	MN	102A	TERRIL	L	5	73	LAC QUI PARLE ST. PK	478001	PAV12	MN83012	WLDF	*85	5.0	2.0	4	3	3	1	1
*	MN	102A	SVERDRUP	SL	5	73	G LARSON	478001	PAV12	MN83013	RNGE								
*	MN	102A	SVERDRUP	SL	5	73	G LARSON	478001	PAV12	MN83013	RNGE	*85	6	1	5	1	1	5	4
*	MN	102A	SVERDRUP	SL	5	73	G LARSON	478001	PAV12	MN83018	WLDF	*83	7.0	10.0	4	3	3	1	1
*	MN	102A	SVERDRUP	SL	5	73	G LARSON	478001	PAV12	MN83018	WLDF	*84	7.0	10.0	5	3	3	3	4
*	MN	102A	SVERDRUP	SL	5	73	G LARSON	478001	PAV12	MN85025	TERR	*85	1.7	6	6	6	6	6	3
*	MN	102A	BUSE	SIL	5	73	A SCHMIDT	478001	PAV12	MN85025	TERR	*86	1.7	6	4	5	5	3	4
*	MN	102A	BUSE	SIL	5	73	A SCHMIDT	478001	PAV12	MN85030	EACH	*85	2.6	6	6	5	5	3	4
*	MN	102A	BUSE	SIL	5	73	B NINNEMAN	478001	PAV12	MN85030	EACW	*86	2.6	6	6	5	5	3	4
*	MN	102A	BUSE	SIL	5	73	B NINNEMAN	478001	PAV12	MN85031	TERR	*85	1.5	6	6	5	5	3	4
*	MN	102A	BARNES FLOW	L	5	81	J BEHNKE	478001	PAV12	MN86033	PAST	*86	5.5	5.5	7	3	3	1	1
*	MN	102	BUSE-FORMAN	L	5	83	J REGNIER	478001	PAV12	MN85028	TERR	*85	4	1.0	1	5	5	9	4

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF FORESTING • SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT	AREA	CNT	SOIL	009	111	205	303	001	002	502	FIELD	517	801	531	523	830	833	821	910	713		
				NUMBER	COOPERATOR						ACCN	PLANT	YR	AMT	SD	STD									
												SYMBOL	PLNT	NO	PJRP	RC	ACRE	RATE	VIS	WDC	ADPT	STAT			
*	MN	102	BUSE-FORMAN	L	5	83	J REGNIER				478001	PAV12	MN85028	TERR	*86	*4	1.0	1	5	7	9	A			
*	MN	102	VIENNA	L	5	102	VANDER VOORT	BROS.			478001	PAV12	MN82012	SPEC	*82	1.0	7.0		7		1				
*	MN	102	VIENNA	L	5	102	VANDER VOORT	BROS.			478001	PAV12	MN82012	SPEC	*83	1.0	7.0	8		7		1			
*	MN	102	VIENNA	L	5	102	VANDER VOORT	BROS.			478001	PAV12	MN82012	SPEC	*84	1.0	7.0	8		5		3			
*	MN	102	VIENNA	L	5	102	VANDER VOORT	BROS.			478001	PAV12	MN82012	SPEC	*86	1.0	7.0	33		5		3			
*	MN	102	CLAIRIOT EVERLY	L	5	105	F GOEBEL				478001	PAV12	MN85029	TERR	*86	*1	*5	7		9		7	A		
*	MN	102B	RUSHMORE&WILMONT	SICL	5	105	NOBLES CO	Hwy DEPT			478001	PAV12	MN86022	CARD	*86	2.5	1.0	5		3		7			
*	MN	102B	EVERLY	CL	5	105	R NELSON				478001	PAV12	MN86023	TERR	*86	*1	*5	185		3		3	A		
*	MN	102	ESTHERVILLE	L	5	105	MN DNR				478001	PAV12	MN86025	WLDF	*86	*5	225		3	1	A				
*	MN	102A	BARNES-VIENNA	LSIL	5	117	WINSSEL				478001	PAV12	MN78014	PAST	*80	1.0	5.0	3		4		3			
*	MN	102A	BARNES-VIENNA	SIL	5	117	WINSSEL				478001	PAV12	MN78014	PAST	*81	1.0	5.0	1		3		1			
*	MN	102A	BARNES-VIENNA	SIL	5	117	WINSSEL				478001	PAV12	MN78014	PAST	*82	1.0	5.0	2		3		1			
*	MN	102A	BARNES-VIENNA	SIL	5	117	WINSSEL				478001	PAV12	MN78014	PAST	*83	1.0	5.0	5		5		3			
*	MN	102A	BARNES-VIENNA	SIL	5	117	WINSSEL				478001	PAV12	MN78014	PAST	*84	1.0	5.0	2		4		1			
*	MN	102A	BARNES-VIENNA	SIL	5	117	WINSSEL				478001	PAV12	MN78014	PAST	*85	1.0	5.0	80		3		3			
*	MN	102A	BARNES-VIENNA	LSIL	5	117	WINSSEL				478001	PAV12	MN78014	PAST	*85	80	1	3		3		1			
*	MN	102A	FLANDREAU-KRANZ	SIL	5	117	K PAULSEN				478001	PAV12	MN78015	PAST	*80	7.0	5		9		3				
*	MN	102A	FLANDREAU-KRANZ	SIL	5	117	K PAULSEN				478001	PAV12	MN78015	PAST	*81	7.0	6		5		9				
*	MN	102A	FLANDREAU-KRANZ	SIL	5	117	K PAULSEN				478001	PAV12	MN78015	PAST	*82	7.0	3		1		3				
*	MN	102A	FLANDREAU-KRANZ	SIL	5	117	K PAULSEN				478001	PAV12	MN78015	PAST	*83	7.0	3		2		1				
*	MN	102A	FLANDREAU-KRANZ	SIL	5	117	K PAULSEN				478001	PAV12	MN78015	PAST	*84	7.0	5		2		3				
*	MN	102	VIENNA	L	5	117	VANDER VOORT	BROS.			478001	PAV12	MN82012	STAB											
*	MN	102	VIENNA	SIL	5	117	VANDER VOORT	BROS.			478001	PAV12	MN82012	STAB	*86										
*	MN	102	WHITEWOOD	SIL	5	117	R JOHANNSEN				478001	PAV12	MN82018	EACW											
*	MN	102	WHITEWOOD	SIL	5	117	R JOHANNSEN				478001	PAV12	MN82018	SPEC	*83	1.0									
*	MN	102	WHITEWOOD	SIL	5	117	R JOHANNSEN				478001	PAV12	MN82018	SPEC	*84	1.0									
*	MN	102	WHITEWOOD	SIL	5	117	R JOHANNSEN				478001	PAV12	MN82018	EACW	*85	1.0									
*	MN	102B	ESTELLINE-3ROOKI	SICL	5	117	PAULSEN BROS.				478001	PAV12	MN83014	PAST	*83	2.0	7.0	5		7		3			
*	MN	102B	ESTELLINE-3ROOKI	SICL	5	117	PAULSEN BROS.				478001	PAV12	MN83014	PAST	*84	2.0	7.0	6		7		3			
*	MN	102B	ESTELLINE-3ROOKI	SICL	5	117	PAULSEN BROS.				478001	PAV12	MN83014	PAST	*85	2.0	7.0	80		1		3			
*	MN	102B	ESTELLINE-3ROOKI	SICL	5	117	PAULSEN BROS.				478001	PAV12	MN83014	PAST	*85	80	1								
*	MN	103	ESTHERVILLE	SL	5	127	E SOGAARD				478001	PAV12	MN76013	RNGE											
*	MN	103	ESTHERVILLE	S	5	127	E SOGAARD				478001	PAV12	MN76013	WLDF	*81	1.0	10.0	1		1		3			

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF •FORESTURGE• SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT	SOIL AREA	COOPERATOR	ACCN	PLANT NUMBER	FIELD SYMBOL	PLNT NO	PJRD	ACRE	RATE	VIS	VIS	WDC	ADPT	STAT	
*	504	506	507	509	ESTHERVILLE	S	5 103	E SOGAARD	478001	PAV12	001	523	830	833	821	910	713	
*	MN	103	ESTHERVILLE	S	S	S	5 127	E SOGAARD	478001	PAV12	502	517	801	531	1	3	1	
*	MN	103	ESTHERVILLE	S	S	S	5 127	E SOGAARD	478001	PAV12	MN76013	WLD	*82	1.0	10.0	2	3	1
*	MN	103	CANISTED	S	S	S	5 127	M LARSON	478001	PAV12	MN76013	WLD	*83	1.0	10.0	2	3	1
*	MN	103	CANISTED	S	S	S	5 127	M LARSON	478001	PAV12	MN83016	WLD	*84	1.0	10.0	2	3	1
*	MN	103	CANISTED	SL	S	S	5 127	M LARSON	478001	PAV12	MN83016	WLD	*84	1.0	6.0	1	3	A
*	MN	102A	MADDOCK	SL	S	S	5 151	S KNUTSON	478001	PAV12	MN79006	WLD	*80	3.0	9	7	9	3
*	MN	102A	MADDOCK	SL	S	S	5 151	S KNUTSON	478001	PAV12	MN79006	WLD	*81	3.0	9	9	3	1
*	MN	102A	MADDOCK	SL	S	S	5 151	S KNUTSON	478001	PAV12	MN79006	WLD	*82	3.0	7	5	3	1
*	MN	102A	MADDOCK	SL	S	S	5 151	S KNUTSON	478001	PAV12	MN79006	WLD	*83	3.0	5	1	3	1
*	MN	102A	MADDOCK	SL	S	S	5 151	S KNUTSON	478001	PAV12	MN79006	WLD	*84	3.0	4	5	3	1
*	MN	102A	MADDOCK	SL	S	S	5 151	S KNUTSON	478001	PAV12	MN79006	WLD	*86	3.0	30	1	4	3
*	MN	102A	MADDOCK	SL	S	S	5 151	S KNUTSON	478001	PAV12	MN79006	WLD	*86	3.0	1	4	3	1
*	MN	102A	VALLERS-WINGER	SICL	S	S	5 151	M WEIMERSKIRCH	478001	PAV12	MN83010	WLD	*83	1.0	5.0	3	9	3
*	MN	102A	VALLERS-WINGER	SICL	S	S	5 151	M WEIMERSKIRCH	478001	PAV12	MN83010	WLD	*84	1.0	5.0	3	9	3
*	MN	102A	VALLERS-WINGER	SICL	S	S	5 151	M WEIMERSKIRCH	478001	PAV12	MN83010	WLD	*86	70	3	7	3	1
*	MN	102A	VALLERS-WINGER	SICL	S	S	5 151	M WEIMERSKIRCH	478001	PAV12	MN83010	WLD	*86	1.0	5.0	30	7	3
*	MN	102A	VALLERS-WINGER	SICL	S	S	5 173	L DENEKAMP	478001	PAV12	MN78013	PAST	*80	6.0	7.0	2	5	1
*	MN	102A	BARVES	L	S	S	5 173	L DENEKAMP	478001	PAV12	MN78013	PAST	*81	6.0	7.0	5	1	3
*	MN	102A	BARVES	L	S	S	5 173	L DENEKAMP	478001	PAV12	MN78013	PAST	*82	6.0	7.0	2	3	1
*	MN	102A	BARVES	L	S	S	5 173	L DENEKAMP	478001	PAV12	MN78013	PAST	*83	6.0	7.0	4	3	1
*	MN	102A	BARVES	L	S	S	5 173	L DENEKAMP	478001	PAV12	MN78013	PAST	*84	6.0	7.0	7	3	1
*	MN	102A	BARVES	L	S	S	5 173	L DENEKAMP	478001	PAV12	MN78013	PAST	*85	6.0	7.0	5	5	1
*	MN	102A	BARVES	L	S	S	5 173	L DENEKAMP	478001	PAV12	MN78013	PAST	*85	5	5	5	5	1
*	MN	102	VESTJORDEN	L	S	S	5 173	G PETERSON	478001	PAV12	MN85032	EACW	*85	*1	10.0	0	4	4
*	MN	102	VESTJORDEN	L	S	S	5 173	G PETERSON	478001	PAV12	MN85032	EACW	*86	*1	10.0	3	7	5
*	MN	103	FEDJI	LFS	S	S	6 13	C SHOUTS	478001	PAV12	MN81017	WLD	*81	3.0	5.0	7	7	1
*	MN	103	FEDJI	LFS	S	S	6 13	C SHOUTS	478001	PAV12	MN81017	WLD	*82	3.0	5.0	5	5	1
*	MN	103	FEDJI	LFS	S	S	6 13	C SHOUTS	478001	PAV12	MN81017	WLD	*83	3.0	5.0	1	1	3
*	MN	103	FEDJI	LFS	S	S	6 13	C SHOUTS	478001	PAV12	MN81017	WLD	*84	3.0	5.0	1	1	3
*	MN	103	FEDJI	LFS	S	S	6 13	C SHOUTS	478001	PAV12	MN81017	WLD	*86	3.0	5.0	38	1	3
*	MN	103	FEDJI	LFS	S	S	6 13	C SHOUTS	478001	PAV12	MN81017	WLD	*86	38	1	3	1	1

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF FORESTBURG SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT AREA	SOIL ADW	CYT	509	711	505	303	001	002	502	517	801	531	525	830	833	821	310	713
				NUMBER	SYMBOL	PLANT	FIELD	PLNT	NO	PJRP	RC	ACRE	RATE	VIS	VIG	WJC	ADPT	STAT			
*	4N	103	BLUE EARTH COMFR	CLSI	6	13	M	BAKER		478001	PAV12	4N85036	WLDF	*86	1•5	•5	17	5	7	3	4
*	4N	103	DORCHESTER	L	5	13	H•E.	CO. PARKS	DEPT	478001	PAV12	4N85037	WLDF	*86	3•0	•5	5	3	3	4	4
*	MN	103	LESUEUR	CL	5	13	D	WINGER		478001	PAV12	MN86018	WLDF	*86	4•7	•5	12	5	3	1	4
*	MN	103	COLAND•TERRIL	CL	6	15	D	YOUNGERBERG		478001	PAV12	MN80038	PAST	*80	4•0	1	1	1	3	3	1
*	MN	103	COLAND•TERRIL	CL	6	15	D	YOUNGERBERG		478001	PAV12	MN80038	PAST	*81	4•0	1	1	1	1	3	1
*	MN	103	COLAND•TERRIL	CL	6	15	D	YOUNGERBERG		478001	PAV12	MN80038	PAST	*82	4•0	1	1	1	1	3	1
*	MN	103	COLAND•TERRIL	CL	6	15	D	YOUNGERBERG		478001	PAV12	MN80038	PAST	*83	4•0	1	1	1	1	3	1
*	MN	103	COLAND•TERRIL	CL	6	15	D	YOUNGERBERG		478001	PAV12	MN80038	PAST	*84	4•0	1	1	1	1	3	1
*	MN	103	COLAND•TERRIL	CL	6	15	D	YOUNGERBERG		478001	PAV12	MN80038	PAST	*85	4•0	1	1	1	1	3	1
*	MN	103	COLAND•TERRIL	CL	6	15	D	YOUNGERBERG		478001	PAV12	MN80038	PAST	*85	4•0	1	1	1	1	3	1
*	4N	103	MILLINGTON	CL	5	43	FARIBAULT	CITY	PARKS	478001	PAV12	MN81012	WLDF								
*	4N	103	MILLINGTON	CL	6	43	FARIBAULT	CO.	PARK	478001	PAV12	MN81012	SPEC	*82	5•0	5•0	7	3	1	3	1
*	4N	103	MILLINGTON	CL	5	43	FARIBAULT	CO.	PARK	478001	PAV12	MN81012	SPEC	*83	5•0	5•0	7	7	1	3	1
*	4N	103	MILLINGTON	CL	6	43	FARIBAULT	CO.	PARK	478001	PAV12	MN81012	SPEC	*84	5•0	5•0	5	1	1	3	1
*	MN	103	MILLINGTON	CL	5	43	FARIBAULT	CITY	PARKS	478001	PAV12	MN81012	WLDF	*85	2•4	3	3	3	3	3	1
*	MN	103	MILLINGTON	CL	5	43	FARIBAULT	CO.	PARK	478001	PAV12	MN81012	SPEC	*85	5•0	5•0	24	3	3	3	1
*	MN	102	SUNBURG	FSL	6	67	D	FOSSO		478001	PAV12	MN85040	TERR	*85	*3	2•0	24	3	3	3	4
*	4N	102	SUNBURG	FSL	6	67	D	FOSSO		478001	PAV12	MN85040	TERR	*86	*3	2•0	40	1	1	3	4
*	MN	103	SUNBURG-WADENIL	FSL	6	67	J	WILLIAMSON		478001	PAV12	MN85041	TERR	*85	*5	2•0	500	5	3	3	4
*	MN	103	SUNBURG-WADENIL	FSL	6	67	J	WILLIAMSON		478001	PAV12	MN85041	TERR	*86	*5	2•0	500	5	3	3	4
*	MN	102A	SUNBURG WADENIL		6	67	J	KANDIYOH	CO	478001	PAV12	MN86019	CARD	*86	.7	3	3	3	3	3	4
*	MN	103	CANISTED	CL	6	85	GLENCOE	PUBLIC	SCHOOL	478001	PAV12	MN81013	WLDF								
*	MN	103	CANISTED	C	6	85	GLENCOE	PJB.	SCH.	478001	PAV12	MN81013	SPEC	*82	4•0	10•0	1	5	1	3	1
*	4N	103	CANISTED	C	6	95	GLENCOE	PUB.	SCH.	478001	PAV12	MN81013	SPEC	*83	4•0	10•0	4	1	3	3	1
*	MN	103	CANISTED	C	b	85	GLENCOE	PUBLIC	SCHOOL	478001	PAV12	MN81013	SPEC	*84	4•0	10•0	3	1	3	3	1
*	MN	103	CANISTED	C	b	95	GLENCOE	PUB.	SCH.	478001	PAV12	MN81013	SPEC	*85	4•0	10•0	8	1	5	1	1
*	MN	103	CLARION	L	6	85	MN	DNR		478001	PAV12	MN86037	WLDF	*86	12•8	6•0	80	3	1	4	
*	MN	103	LESTER-JEBSSTER	L	6	93	E	PJUSI		478001	PAV12	MN79007	WLDF								
*	4N	103	LESTER-JEBSSTER	SCL	5	93	E	PJUSI		478001	PAV12	MN79007	WLDF	*80	5•0	5	9	3	1	3	
*	4N	103	LESTER-JEBSSTER	SCL	5	93	E	PJUSI		478001	PAV12	MN79007	WLDF	*81	5•0	5	3	3	3	1	
*	MN	103	LESTER-JEBSSTER	SCL	5	93	E	PJUSI		478001	PAV12	MN79007	WLDF	*82	5•0	5	3	3	3	1	
*	MN	103	LESTER-JEBSSTER	SCL	6	93	E	PJUSI		478001	PAV12	MN79007	WLDF	*83	5•0	5	3	1	1	3	
*	MN	103	LESTER-JEBSSTER	SCL	6	93	E	PJUSI		478001	PAV12	MN79007	WLDF	*84	5•0	5	3	1	1	3	
*	MN	103	LESTER-JEBSSTER	SCL	6	93	E	PJUSI		478001	PAV12	MN79007	WLDF	*85	5•0	5	3	3	1	1	
*	4N	103	CANISTED-JHARPS	CL	5	93	E	USDI-FWS		478001	PAV12	MN79007	WLDF	*85	90	3	3	1	1	1	

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY JF • FORESTBURG • SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT	ADW	CYT	SOIL AREA	NUM	COOPERATOR	NUMBER	ACCN	PLANT SYMBOL	FIELD P-NT NO	PURP RC	ACRE	YR	AMT	SD	STD	523	830	833	821	910	713			
*	MN	103	CANISTE J•HARPS	CL	6	93	USDI•F&WS		478001	PAV12	4N80035	WLDF *81		5.0	5	3	3	3	1								
*	MN	103	CANISTE J•HARPS	CL	6	93	USDI•F&WS		478001	PAV12	4N80035	WLDF *82		5.0	3	1	1	1	3	1							
*	MN	103	CANISTE J•HARPS	CL	6	93	USDI•F&WS		478001	PAV12	4N80035	WLDF *83		5.0	1	1	1	1	3	1							
*	MN	103	CANISTE J•HARPS	CL	6	93	USDI•F&WS		478001	PAV12	4N80035	WLDF *84		5.0	3	1	1	1	3	1							
*	MN	103	CANISTE O•HARPS	CL	5	93	USDI•F&WS		478001	PAV12	4N80035	WLDF *85		5.0	150	5	3	3	3	1							
*	MN	103	CANISTE J-HARPS	CL	6	93	USDI-F&WS		478001	PAV12	4N80035	WLDF *85		150	5	3	3	3	1								
*	MN	103	VICOLLET-CANISTE	SICL	6	93	USDI-F&WS		478001	PAV12	4N82013	SDIV		150	5	3	3	3	1								
*	MN	103	VICOLLET-CANISTE	SICL	5	93	USDI•F&WS		478001	PAV12	4N82013	WLDF *82		6.0	1	3	1	1	3	1							
*	MN	103	VICOLLET-CANISTE	SICL	5	93	USDI•F&WS		478001	PAV12	4N82013	WLDF *83		6.0	3	1	1	1	3	1							
*	MN	103	VICOLLET-CANISTE	SICL	6	93	USDI•F&WS		478001	PAV12	4N82013	WLDF *84		5.0	3	1	1	1	3	1							
*	MN	103	VICOLLET-CANISTE	SICL	6	93	USDI•F&WS		478001	PAV12	4N82013	WLDF *85		6.0	300	1	1	1	1	3	1						
*	MN	103	NICOLLET-CANISTE	SICL	5	93	USDI•F&WS		478001	PAV12	4N82013	SDIV		300	1	1	1	1	1								
*	MN	103	NICOLLET-CANISTE	SICL	6	93	USDI•F&WS		478001	PAV12	4N82013	WLDF *85		6.0	30	7	5	7	1								
*	MN	103	NICOLLET-CANISTE	SICL	5	93	USDI-F&WS		478001	PAV12	4N82013	SDIV		30	7	5	7	1									
*	MN	103	LESTER	L	5	93	J OSTLUND		478001	PAV12	4N83018	TERR															
*	MN	093	LESTER	L	6	93	J OSTLUND		478001	PAV12	4N83018	SPEC *83		1.0	7	3	3	3	1								
*	MN	093	LESTER	L	6	93	J OSTLUND		478001	PAV12	4N83018	SPEC *84		1.0	6	5	1	3	1								
*	MN	093	LESTER	L	6	93	J OSTLUND		478001	PAV12	4N83018	SPEC *85		1.0	63	3	3	3	1								
*	MN	103	LESTER	L	6	93	J OSTLUND		478001	PAV12	4N83018	TERR		85	53	3	3	3	1								
*	MN	093	LESTER	L	6	93	J OSTLUND		478001	PAV12	4N82015	WLDF															
*	MN	093	LESTER	CL	6	93	J OSTLUND		478001	PAV12	4N82015	WLDF		85													
*	MN	103	LESTER	CL	6	93	J OSTLUND		478001	PAV12	4N82015	SPEC		84													
*	MN	103	LESTER	CL	6	93	J OSTLUND		478001	PAV12	4N82015	SPEC		85													
*	MN	103	LESTER	CL	5	103	LESJEUR PARK		478001	PAV12	4N82015	SPEC		83													
*	MN	103	LESTER	CL	5	103	LESJEUR PARK		478001	PAV12	4N82015	SPEC		84													
*	MN	103	LESTER	CL	5	103	LESJEUR PARK		478001	PAV12	4N82015	SPEC		85													
*	MN	103	GLEVCOE	SICL	6	161	U ⁴ SO. EXP. STA.		478001	PAV12	4N81014	SPEC		82	1.0	2.0	5	1	1	3	1						
*	MN	103	GLEVCOE	SICL	6	161	U ⁴ SO. EXP. STA.		478001	PAV12	4N81014	SPEC		84	1.0	2.0	1	1	3	1							
*	MN	103	GLEVCOE	SICL	6	161	U ⁴ SO. EXP. STA.		478001	PAV12	4N81014	SPEC		85	1.0	2.0	1	1	3	1							
*	MN	103	GLEVCOE	SICL	6	161	U ⁴ SO. EXP. STA.		478001	PAV12	4N81014	SPEC		85	1.0	2.0	1	1	3	1							
*	MN	103	COMFREY	SCL	6	165	V MONSON		478001	PAV12	4N76015	PAST															
*	MN	103	COMFREY	SCL	6	165	V MONSON		478001	PAV12	4N76015	PAST		85													
*	MN	103	DARFUR-FIELDON	L-L	6	165	4V DNR TIERNEY UNIT		478001	PAV12	4N79008	WLDF															
*	MN	103	DARFUR-FIELDON	L	6	165	4V DNR TIERNEY UNIT		478001	PAV12	4N79008	WLDF		80	5.0	5.0	6	3	3	3	3						
*	MN	103	DARFUR-FIELDON	L	6	165	4V DNR TIERNEY UNIT		478001	PAV12	4N79008	WLDF		81	5.0	5.0	4	3	3	3	3						
*	MN	103	DARFUR-FIELDON	L	6	165	4V DNR TIERNEY UNIT		478001	PAV12	4N79008	WLDF		82	5.0	5.0	3	3	3	3	3						

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF FORESTBURG SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA SOIL SERIES	TEXT AREA	COOPERATOR	ACCN	PLANT NUMBER	FIELD SYMBOL	PLNT YR	PJRP RC	ACRE RATE	VIS VIS	WDC ADPT STAT	
•	504 506 507	509 711 505 503	AJM CUT	001	002	502	517	801 531	523	830 833 821 910	713	
•	MN 103 DARFUR-FIELDON	L	6 155 MN DNR-TIERNEY UNIT	478001	PAV12	WLDL *83	5.0	5.0	2	1	3	3
•	MN 103 DARFUR-FIELDON	L	6 155 MN DNR-TIERNEY UNIT	478001	PAV12	WLDL *84	5.0	5.0	2	1	3	3
•	MN 103 DARFUR-FIELDON	L-L	6 155 MN DIR-TIERNEY UNIT	478001	PAV12	WLDL *85	5.0	5.0	310	1	1	1
•	MN 103 DARFUR-FIELDON	L	6 155 MN DNR-TIERNEY UNIT	478001	PAV12	WLDL *85	5.0	5.0	310	1	1	1
•	MN 103 HANSA		6 155 FARMLAND RES UNIT	478001	PAV12	WLDL *85	5.0	5.0	310	1	1	1
•	MN 103 HANSA		6 155 FARMLAND RES UNIT	478001	PAV12	WLDL *85	5.0	5.0	310	1	1	1
•	MN 103 LITCHFIELD	LFS	6 165 MN DNR	478001	PAV12	WLDL *80	1.0	5.0	3	3	3	3
•	MN 103 LITCHFIELD	LFS	6 165 MN DNR	478001	PAV12	WLDL *81	1.0	5.0	2	1	3	3
•	MN 103 LITCHFIELD	LFS	6 165 MN DNR	478001	PAV12	WLDL *82	1.0	5.0	3	3	3	3
•	MN 103 LITCHFIELD	LFS	6 165 MN DNR	478001	PAV12	WLDL *83	1.0	5.0	2	3	3	9
•	MN 103 LITCHFIELD	LFS	6 165 MN DNR	478001	PAV12	WLDL *84	1.0	5.0	2	3	3	3
•	MN 103 LITCHFIELD	LFS	6 165 MN DNR	478001	PAV12	WLDL *85	1.0	5.0	2	3	3	3
•	MN 103 LITCHFIELD	LFS	6 165 MN DNR	478001	PAV12	WLDL *85	1.0	5.0	2	3	3	3
•	MN 103 LITCHFIELD	LFS	6 165 MN DNR	478001	PAV12	WLDL *85	1.0	5.0	2	3	3	3
•	MN 103 LITCHFIELD	L-CCL	6 155 R HOLMQUIST	478001	PAV12	WLDL *85	1.0	5.0	390	5	5	1
•	MN 103 LITCHFIELD	L-CCL	6 155 R HOLMQUIST	478001	PAV12	WLDL *85	1.0	5.0	390	5	5	1
•	MN 103 NICOLLET	CL	7 47 H SCHMIDT	478001	PAV12	WLDL *80	1.0	6.0	9	1	1	1
•	MN 103 NICOLLET	CL	7 47 H SCHMIDT	478001	PAV12	WLDL *81	1.0	6.0	5	3	3	3
•	MN 103 NICOLLET	CL	7 47 H SCHMIDT	478001	PAV12	WLDL *82	1.0	6.0	1	1	3	3
•	MN 103 NICOLLET	CL	7 47 H SCHMIDT	478001	PAV12	WLDL *83	1.0	6.0	1	1	3	3
•	MN 103 NICOLLET	CL	7 47 H SCHMIDT	478001	PAV12	WLDL *84	1.0	6.0	7	7	3	3
•	MN 103 NICOLLET	CL	7 47 H SCHMIDT	478001	PAV12	WLDL *85	1.0	6.0	10	1	3	3
•	MN 103 NICOLLET	CL	7 47 H SCHMIDT	478001	PAV12	WLDL *85	1.0	6.0	5	5	3	3
•	MN 103 ESTHERVILLE	L	7 43 GOODHUE CO HIGHWAY J	478001	PAV12	WLDL *8011 CARD	1	3	7	3	3	3
•	MN 105 ESTHERVILLE	L	7 49 GOODHUE CO HIGHWAY D	478001	PAV12	WLDL *8011 CARD	1	3	7	3	3	3
•	MN 099 SARGEANT	SIL	7 99 HORTEL NATURE CT	478001	PAV12	WLDL *8019 SPEC	1	3	7	3	3	3
•	MN 099 SARGEANT	SIL	7 99 HORTEL NATURE CT	478001	PAV12	WLDL *8019 SPEC	1	3	7	3	3	3
•	MN 099 SARGEANT	SIL	7 99 HORTEL NATURE CT	478001	PAV12	WLDL *8019 SPEC	1	3	7	3	3	3
•	MN 099 SARGEANT	SIL	7 99 HORTEL NATURE CT	478001	PAV12	WLDL *8019 SPEC	1	3	7	3	3	3
•	MN 105 ESTHERVILLE	L	7 105 GOODHUE CO-HY-Y. DEPT.	478001	PAV12	WLDL *8016 SPEC	1	3	5	3	3	3
•	MN 105 ESTHERVILLE	L	7 105 GOODHUE CO-HY-Y. DEPT.	478001	PAV12	WLDL *8016 SPEC	1	3	5	3	3	3
•	MN 105 ESTHERVILLE	L	7 105 GOODHUE CO-HY-Y. DEPT.	478001	PAV12	WLDL *8016 SPEC	1	3	5	3	3	3
•	MN 105 ESTHERVILLE	L	7 105 GOODHUE CO-HY-Y. DEPT.	478001	PAV12	WLDL *8016 SPEC	1	3	5	3	3	3
•	MN 105 ESTHERVILLE	SL	7 131 FARIBAULT INT CT	478001	PAV12	WLDL *8015	1	3	7	3	3	3

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF FOREST 3JRG SWITCHGRASS FIELD PLANTINGS IN MINNESOTA
11/39/1987

ST	YLRA	SOIL	SERIES	TEXT	AREA	NUM	COOPERATOR	001	002	FIELD	502	531	523	830	833	821	910	713
								ACCN	PLANT	YR	AMT	SD	STD	ACRE	RATE	VIS	WJC	ADPT
4N	103	ESTERVILLE	SL	7 131	FARIBAULT	INT.CTR	478001	PAV12	MN81015	WLDF	*81	2.0	10.0	4	3	3	1	
4N	103	ESTERVILLE	SL	7 131	FARIBAULT	INT.CTR	478001	PAV12	MN81015	WLDF	*82	2.0	10.0	9	5	3	1	
4N	103	ESTERVILLE	SL	7 131	FARIBAULT	INT.CTR	478001	PAV12	MN81015	WLDF	*83	2.0	10.0	8	1	1	3	
4N	103	ESTERVILLE	SL	7 131	FARIBAULT	INT.CTR	478001	PAV12	MN81015	WLDF	*84	2.0	10.0	9	5	1	9	
4N	103	ESTERVILLE	SL	7 131	FARIBAULT	INT.CTR	478001	PAV12	MN81015	WLDF	*85	2.0	10.0	1	3	5	1	
4N	103	ESTERVILLE	SL	7 131	FARIBAULT	INT.CTR	478001	PAV12	MN81015	WLDF	*85	2.0	10.0	1	3	5	1	
4N	103	ESTERVILLE	SL	7 131	FARIBAULT	INT.CTR	478001	PAV12	MN81015	WLDF	*85	1	3	5	9	1	9	
4N	103	ESTERVILLE	SL	7 131	FARIBAULT	INT.CTR	478001	PAV12	MN81015	WLDF	*85	1	3	5	9	1	9	
4N	105	FAYETTE	SIL	7 157	NY	DNR FORESTRY	478001	PAV12	MN85042	STAB	*85	*1	2.5	1	5	5	4	
4N	105	FAYETTE	SIL	7 157	NY	DNR FORESTRY	478001	PAV12	MN85042	STAB	*86	*1	2.5	4	5	5	3	
4N	105	TAMA	SIL	7 169	F	KULACK	478001	PAV12	MN76017	PAST	*80	1.0	5.0	9	9	9	1	
MN	105	TAMA	SIL	7 169	F	KULACK	478001	PAV12	MN76017	PAST	*81	1.0	5.0	9	9	9	1	
MN	105	TAMA	SIL	7 169	F	KULACK	478001	PAV12	MN76017	PAST	*82	1.0	5.0	9	9	9	1	
MN	105	TAMA	SIL	7 169	F	KULACK	478001	PAV12	MN76017	PAST	*83	1.0	5.0	9	5	3	1	
MN	105	TAMA	SIL	7 169	F	KULACK	478001	PAV12	MN76017	PAST	*84	1.0	5.0	8	5	3	1	
MN	105	TAMA	SIL	7 169	F	KULACK	478001	PAV12	MN76017	PAST	*85	82	5	5	5	3	1	
MN	105	TAMA	SIL	7 169	F	KULACK	478001	PAV12	MN76017	PAST	*85	1.0	5.0	82	5	5	3	
MN	105	O'NEILL	SL	7 169	DVR	WLDF	478001	PAV12	MN78018	WLDF	*80	3.0	10.0	2	3	1	3	
MN	105	O'NEILL	SL	7 169	MN	DNR•WILD•	478001	PAV12	MN78018	WLDF	*80	3.0	10.0	2	3	1	3	
MN	105	O'NEILL	SL	7 169	MN	DNR•WILD•	478001	PAV12	MN78018	WLDF	*81	3.0	10.0	2	1	1	3	
MN	105	O'NEILL	SL	7 169	MN	DNR•WILD•	478001	PAV12	MN78018	WLDF	*82	3.0	10.0	2	1	1	3	
4N	105	O'NEILL	SL	7 169	MN	DNR•WILD•	478001	PAV12	MN78018	WLDF	*83	3.0	10.0	2	1	1	3	
4N	105	O'NEILL	SL	7 169	MN	DNR•WILD•	478001	PAV12	MN78018	WLDF	*84	3.0	10.0	1	1	1	3	
4N	105	O'NEILL	SL	7 169	DVR	WLDF	478001	PAV12	MN78018	WLDF	*85	241	1	3	1	1	3	
4N	105	O'NEILL	SL	7 169	MN	DNR•WILD•	478001	PAV12	MN78018	WLDF	*85	3.0	10.0	241	1	3	1	

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

A SUMMARY OF WOODY FIE-D PLANTINGS IN MINNESOTA
11/04/1287

MINNESOTA
11/04/1387

RATING SYSTEM

Legend:

Legend:
505 CNT NIM (FIPS County Code)

Legend:
505 CNT NUM (FIPS County Code)

552 FOL HT (Height at end of season)

553 FOL WID (Crown width at end of season)
 525 WDC (Weed competition)
 627 ADPT (Adaptation to site)
 713 STAT (Status: active, inactive, terminated)

A SUMMARY OF WOODY PLANTINGS IN MINNESOTA
11/04/1987

ST	MLRA	SOIL SERIES	TEXT AREA	SOIL ADMIN	CYT	505	711	503	001	002	517	599	518	532	552	553	525	627	713
				NUMBER	COOPERATOR				FIELD	PLNT	YR	NUM	SUR	FOL	FOL	JDC	JDC	ADPT	STAT
									PLNT NO	PURP	RC	PLTS	PCT	HT	HT				
*	MN	056 LOHNES	LS	1	119 LEE NURSERY	477998 LOMAG	MN83004 SDIN	*85	98	4-8	2-5	3	3	A					
*	MN	056 LOHNES	LS	1	119 LEE NURSERY	477998 LOMAG	MN83004 SDIN	*86	50	90	•4	•3	3	3	A				
*	MN	056 LOHNES	LS	1	119 LEE NURSERY	477998 LO4A6	MN83004 SDIN	*86	90	•4	•3	3	3	A					
*	MN	056 BEARDEN	SICL	1	119 S MCDONALD	476982 CEJC	MN85015 WIND	*85	50	60	•8	•2	5	5	A				
*	MN	056 BEARDEN	SICL	1	119 S MCDONALD	476982 CEOC	MN85015 WIND	*86	50	97	1-2	•5	1	3	A				
*	MN			1	119 LEE NURSERY	9005729 COIN80	MN85048 SDIN	*85	25	100	2-2	1-0	3	3	A				
*	MN			1	119 LEE NURSERY	9005729 COIN80	MN85048 SDIN	*86	25	90	3-5	•2	3	5	A				
*	MN			1	119 LEE NURSERY	478003 PRFR2	MN85048 SDIN	*86	25	80	1-3	•3	3	5	A				
*	MN			1	119 LEE NURSERY	476982 CEOC	MN86045 SDIN	*86	100	85	•2	•5	3	5	A				
*	MN			1	125 MN WHEAT GROWERS ASS	477992 ACCI	MN85020 WIND	*85	51	100	1-8	1-7	5	5	A				
*	MN	056 WHEATVILLE	SL	1	125 MN WHEAT GROWERS ASS	477992 ACCI	MN85020 WIND	*86	51	93	2-5	2-5	5	5	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	476982 CEOC	MN85020 WIND	*85	40	83	1-1	•5	5	5	A				
*	MN	056 WHEATVILLE	SL	1	125 MN WHEAT GROWERS ASS	476982 CEOC	MN85020 WIND	*86	40	50	1-1	•3	5	7	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	469226 FRPE	MN85020 WIND	*85	42	98	1-7	•7	5	5	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	469226 FRPE	MN85020 WIND	*86	42	98	3-0	•3	5	5	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	478000 MABAMB	MN85020 WIND	*85	45	96	1-4	1-3	5	1	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	478000 MABAMB	MN85020 WIND	*86	45	93	2-3	2-0	5	3	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	478003 PRFR2	MN85020 WIND	*85	34	68	•6	1-0	5	5	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	478003 PRFR2	MN85020 WIND	*86	34	76	1-5	1-0	5	5	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASSY	9006073 PRPA5	MN85020 WIND	*86	50	80	1-8	•5	5	4	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	478005 SHAR	MN85020 WIND	*85	70	94	1-4	•7	5	1	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	478005 SHAR	MN85020 WIND	*86	70	89	3-2	2-1	5	3	A				
*	MN	056 WHEATVILLE	LS	1	125 MN WHEAT GROWERS ASS	476982 CEOC	MN81006 WIND	*85	80	1-0	•7	5	3	1	A				
*	MN	090 MENAHLGA	LS	2	97 D STISH	478004 PYUS80	MN81006 WIND	*85	90	1-2	1-3	5	1	A					
*	MN	090 MENAHLGA	LS	2	97 D STISH	476982 CEOC	MN85045 WIND	*85	99	10	1-0	•5	1	1	A				
*	MN	102 NUTLEY/HATTIE	C	2	149 C ANDERSON	476982 CEOC	MN85016 WIND	*86	50	5	2-4	•3	1	3	A				
*	MN	102 NUTLEY/HATTIE	C	2	149 C ANDERSON	476982 CEOC	MN85045 WIND	*86	50	95	2-6	•2	1	1	A				
*	MN	088 NYMORE	ES	2	159 R LAGESON	477992 ACJI	MN74025 WIND	*78	10	29	•4	•4	1	5	A				
*	MN	GRIMSTAD		2	167 R OUSE	476982 CEOC	MN85016 WIND	*85	50	5	2-4	•3	1	3	A				
*	MN	GRIMSTAD		2	157 R OUSE	476982 CEOC	MN85016 WIND	*86	50	72	•8	•2	5	3	A				
*	MN	056 DORAN		2	167 L POPPEL	477992 ACJI	MN85047 WIND	*85	50	95	2-6	•2	1	1	A				
*	MN	056 DORAN		2	167 L POPPEL	477992 ACJI	MN85047 WIND	*86	50	58	2-2	1-3	3	5	A				
*	MN	090 DULUTH	SIL	3	17 BARNUM HIGH SCHOOL	469226 FRPE	MN82016 WIND	*86	12	•3	•2	7	5	T					
*	MN	090 DULUTH	SIL	3	17 BARNUM HIGH SCHOOL	469226 FRPE	MN82016 WIND	*86	0	5	•2	•1	7	7	T				
*	MN	090 DULUTH	SIL	3	17 BARNUM HIGH SCHOOL	9005909 GLTR	MN82016 WIND	*85	0	7	7	7	7	T					
*	MN	090 DULUTH	SIL	3	17 BARNUM HIGH SCHOOL	9005909 GLTR	MN82016 WIND	*86	0	7	7	7	7	T					
*	MN	090 DULUTH	SIL	3	17 BARNUM HIGH SCHOOL	478004 PYUS80	MN82016 WIND	*85	12	•3	•2	7	7	T					

A SUMMARY OF WOODY FIELD PLANTINGS IN MINNESOTA
11/04/1987

ST	MNRA	SOIL SERIES	TEXT AREA	NUM	COOPERATOR	001	002	002	502	FIELD	PLNT	PLNT	NO	PJRP	RC	PLIS	PCT	HT	SUR	FOL	WIC	WDC	ADPT	STAT
504	506	507	MN	090	DULUTH	SIL	3	17	3ARYUM	HIGH	SCH0JL	478004	PYUS80	MN82016	WIND	*86	0	7	7	7	7	7	7	7
			MN	030	DULUTH	SIL	3	17	BARNUM	HIGH	SCH0JL	478008	SYRE80	MN82016	WIND	*85	5	•1	•1	7	7	7	7	7
			MN	090	DULUTH	SIL	3	17	BARNUM	HIGH	SCH0JL	478008	SYRE80	MN82016	WIND	*86	0	7	7	7	7	7	7	7
			MN	091	HAYDEN	FSL	3	59	P WALKER			476382	CE0C	MN85005	WIND	*85	25	24	1•0	*3	3	3	3	3
			MN	091	HAYDEN	FSL	3	59	P WALKER			476382	CE0C	MN85005	WIND	*86	25	63	*1	•1	7	5	5	5
			MN	091	HAYDEN	FSL	3	59	P WALKER			9011950	GLS180	MN85005	WIND	*85	25	92	1•1	*4	3	3	3	3
			MN	091	HAYDEN	FSL	3	59	P WALKER			9011850	GLS180	MN85005	WIND	*86	25	50	*2	•1	7	5	5	5
			MN	091	HAYDEN	SL	3	65	R VOGT			477992	ACGI	MN85004	WIND	*85	50	96	*1	•1	3	3	3	3
			MN	090	MORA	SL	3	65	R VOGT			477992	ACGI	MN85004	WIND	*86	50	94	2•4	1•5	3	3	3	3
			MN	090	MORA	SL	3	55	R VOGT			476382	CE0C	MN85004	WIND	*85	50	90	*1	•1	3	3	3	3
			MN	090	MORA	SL	3	55	R VOGT			476382	CE0C	MN85004	WIND	*86	50	18	*5	•1	3	3	3	3
			MN	090	MORA	SL	3	65	R VOGT			9011850	GLS180	MN85004	WIND	*85	50	92	*1	•4	3	3	3	3
			MN	090	MORA	SL	3	55	R VOGT			9011950	GLS180	MN85004	WIND	*86	50	86	1•0	•5	3	3	3	3
			MN	090	MORA	LS	3	115	D LYSETH			476382	CE0C	MN85006	WIND	*85	25	80	1•2	1	3	3	3	3
			MN	094	OMEGA	LS	3	115	D LYSETH			476382	CE0C	MN85006	WIND	*86	25	95	*6	•5	5	7	7	7
			MN	094	OMEGA	LS	3	115	D LYSETH			9011850	GLS180	MN85006	WIND	*85	75	100	1•0	•5	5	7	7	7
			MN	094	OMEGA	LS	3	115	D LYSETH			9011850	GLS180	MN85006	WIND	*86	75	100	1•0	•5	5	7	7	7
			MN	094	OMEGA	LS	3	115	D LYSETH			9006073	PRPA5	MN86002	WIND	*86	25	95	*6	•5	5	7	7	7
			MN	103	LESTER	L	4	19	J HEDTKE			9030301	LOKO28	MN82017	WIND	*85	95	93	2•8	2•9	6	4	4	4
			MN	090	DICKINSON	SL	4	37	E ALMQVIST			9030301	LOKO28	MN82017	WIND	*86	93	3•0	2•5	5	3	1	1	1
			MN	090	DICKINSON	SL	4	37	E ALMQVIST			469226	FRPE	MN86030	WIND	*86	25	92	1•2	•1	5	3	3	3
			MN	103	HUBBARD	FS	4	139	D WAGNER			477992	ACGI	MN85007	WIND	*85	25	95	2•1	•2	1	3	3	3
			MN	102	AASTAD	CL	5	11	M MILLS			477992	ACGI	MN85007	WIND	*86	25	0	1	1	1	1	1	1
			MN	102	AASTAD	CL	5	11	M MILLS			476982	CE0C	MN85007	WIND	*85	25	90	*2	•5	1	3	3	3
			MN	102	AASTAD	CL	5	11	M MILLS			476982	CE0C	MN85007	WIND	*86	25	80	*3	•1	1	3	3	3
			MN	102	AASTAD	CL	5	11	M MILLS			9011850	GLS180	MN85007	WIND	*85	50	95	*2	•7	1	3	3	3
			MN	102A	AASTAD	SICL	5	23	CHIPPEWA COUNTY			9011850	GLS180	MN85007	WIND	*86	50	80	2•5	•5	1	3	3	3
			MN	102A	AASTAD	SICL	5	23	D MOE			477992	ACGI	MN85021	WIND	*85	25	100	1•2	•5	3	3	3	3
			MN	102A	AASTAD	SICL	5	23	D MOE			476982	CE0C	MN85022	WIND	*85	25	12	•0	•3	7	3	3	3
			MN	102A	AASTAD	SICL	5	23	D MOE			476982	CE0C	MN85022	WIND	*86	25	97	1•8	1•5	5	3	3	3
			MN	102A	AASTAD	SICL	5	23	K BEITO			469226	FRPE	MN86007	WIND	*86	25	90	2•5	2•2	1	3	3	3
			MN	102A	AASTAD	SICL	5	23	D WEHRSPOVN			9003490	VITIS	MN86012	WLDF	*86	6	83	3•8	2•2	7	3	3	3
			MN	103	EVERLY	CL	5	33	G POLZIN			9006073	PRPA5	MN86008	WLDF	*86	15	100	2•0	1•0	2	3	3	3
			MN	103	EVERLY	CL	5	33	G POLZIN			9034900	VILE	MN86008	WLDF	*86	50	100	2•0	1•0	2	3	3	3
			MN	103	WALDORF	SIC	5	63	SANDY POINT CO. PARK			477992	ACGI	MN76012	WIND	*77	25	80	1	1	1	1	1	1

A SUMMARY OF WOODY FIELD PLANTINGS IN MINNESOTA
11/04/1987

ST	MLRA	SOIL SERIES	TEXT AREA	COOPERATOR	NUMBER	SYN	PLNT	VO	PURP	RC	PLTS	PCT	HT	ID	DOC	ADPT	STAT		
504	506	507	509	711	505	503	001	002	502	FIELD	517	599	518	532	552	553	525	627	713
MN	103	WALDORF	SIC		5	63	SANDY POINT CO.	PARK	477992	ACGI	MN76012	WIND	*78	25	70				
MN	103	WALDORF	SIC		5	63	SANDY POINT CO.	PARK	477992	ACGI	MN76012	WIND	*79	25	70				
MN	103	JALDORF	SIC		5	63	SANDY POINT CO.	PARK	477992	ACGI	MN76012	WIND	*81	25	72	*9	*7	3	
MN	103	JALDORF	SIC		5	63	SANDY POINT CO.	PARK	477992	ACGI	MN76012	WIND	*82	25	64	1.0	*3	1	
MN	103	WALDORF	SIC		5	63	SANDY POINT CO.	PARK	477992	ACGI	MN76012	WIND	*85	50	100	2.5	*5	3	
MN	103	CLARION	L		5	53	N HILDEBRANDT		9011850	GLSI80	MN85010	WIND	*86	50	100	2.5	1.0	5	
MN	103	CLARION	L		5	53	N HILDEBRANDT		9011850	GLSI80	MN85010	WIND	*86	50	100	2.5	1.0	5	
MN	102	BARNES-SINGSAAS	SIL		5	81	J THOMSEN		9011850	GLSI80	MN85008	WIND	*85	25	100	1.2	*2	1	
MN	102	BARNES-SINGSAAS	SIL		5	81	J THOMSEN		9011850	GLSI80	MN85008	WIND	*86	25	100	1.6	*5	1	
MN	102	BARNES-SINGSAAS	SIL		5	91	J BEHNKE		9011850	GLSI80	MN85009	WIND	*85	26	96	1.0	*2	1	
MN	102	BARNES-SINGSAAS	SIL		5	91	J BEHNKE		9011850	GLSI80	MN85009	WIND	*86	26	100	1.5	*5	1	
MN	102A	BARNES-SINGSAAS	SIL		5	81	J BEHNKE		469226	FRPE	MN86003	WIND	*86	50	100	2.5	*5	1	
MN	102A	BARNES-SINGSAAS	SIL		5	81	J BEHNKE		469226	ACGI	MN74021		*74	26	60				
MN	103	FAIRHAVEN	SIL		5	105	LAKE BELLA		477992	ACGI	MN74021		*75	26	23				
MN	103	FAIRHAVEN	SIL		5	105	LAKE BELLA		477992	ACGI	MN74021		*76	26	12				
MN	103	FAIRHAVEN	SIL		5	105	LAKE BELLA		469226	FRPE	MN86006	WIND	*86	30	97	2.8	2.0	5	
MN	102A	BARNES-BJUSE	L		5	151	F DOLAN		476982	CEOC	MN85017	WIND	*85	50	100	1.6	*3	1	
MN	103	WEBSTER	L		5	173	R DAVES		476982	CEOC	MN85017	WIND	*86	50					
MN	103	WEBSTER	L		5	173	R DAVES		469226	FRPE	MN86004	WIND	*86	25	98	3.5	*5	5	
MN	103	WEBSTER	L		5	173	R SMITH		9006073	PRPA5	MN86009	WLDF	*86	10	70	2.3	*5	7	
MN	102A		L		5	173	H TATELY		9003490	VITIS	MN86009	WLDF	*86	10	100	1.0	*5	7	
MN	102A		L		5	173	H TATELY		476982	CEOC	MN85011	WIND	*85	25					
MN	103	TILFER	SICL		5	13	R ANDERSON		476982	CEOC	MN85011	WIND	*86	25	16	2.5	2.0	7	
MN	103	TILFER	SICL		5	13	R ANDERSON		9011850	GLSI80	MN85011	WIND	*85	25					
MN	103	TILFER	SICL		5	13	R ANDERSON		9011850	GLSI80	MN85012	WIND	*85	25					
MN	103	WEBSTER	SICL		5	13	DAVIS-RICHARD'S FARMS		477992	ACGI	MN85012	WIND	*85	25					
MN	103	WEBSTER	SICL		5	13	DAVIS-RICHARD'S FARMS		477992	ACGI	MN85012	WIND	*86	25					
MN	103	WEBSTER	SICL		5	13	DAVIS-RICHARD'S FARMS		476982	CEOC	MN85012	WIND	*85	25					
MN	103	WEBSTER	SICL		5	13	DAVIS-RICHARD'S FARMS		476982	CEOC	MN85012	WIND	*86	25					
MN	103	WEBSTER	SICL		5	13	DAVIS-RICHARD'S FARMS		9005073	PRPA5	MN86005	WIND	*86	25					
MN	103	WEBSTER	SICL		5	13	DAVIS-RICHARD'S FARMS		477992	ACGI	MN85019	WLDF	*85	50					
MN	103	WEBSTER	SICL		5	13	DAVIS-RICHARD'S FARMS		477992	ACGI	MN85019	WLDF	*86	50					
MN	103	FIELDON&DARFUR	L		6	13	L LUNZ		469226	FRPE	MN86005	WIND	*86	25	100	2.5	3.5	1	
MN	103	FIELDON&DARFUR	L		6	13	L LUNZ		9005073	PRPA5	MN86005	WIND	*86	25	100	2.5	4.0	1	
MN	103	ESTHERVILLE	SL		6	67	U GUSTAFSON		477992	ACGI	MN85019	WLDF	*85	50	64	*1	*3	9	
MN	103	ESTHERVILLE	SL		6	57	U GUSTAFSON		477992	ACGI	MN85019	WLDF	*86	50	90	*1	*5	9	
MN	103	WEBSTER	SICL		6	85	R ADAMS		9006073	PRPA5	MN86014	WIND	*86	25	96	2.5	*9	7	
MN	103	WEBSTER	SICL		6	103	E NICOLLET		476382	CEOC	MN85018	WIND	*85	60	93	*5	*2	1	

A SUMMARY JF WOODY FIE-D PLANTINGS IN MINNESOTA
11/04/1987

ST	MLRA	SOIL SERIES	SOIL AREA	TEXT AREA	NUM	COOPERATOR	NUMBER	SYMB	001	002	502	517	699	518	532	552	553	525	627	713			
									ACCN	PLNT	FIELD	YR	NU	SUR	FOL	PCT	HT	WT	ADC	ADPT	STAI		
*	504	506	507	509	711	505	503	SICL	6	103	E FREUNDL	476382	CEOC	4N85018	WIND	*86	60	97	2.5	1.0	1	.5	A
*	MN	103	103	103	103	103	103	DORCHESTER-TERRI	6	129	RENNILLE CO. PK.	477392	ACGI	4N76014	*81	50	100	.3	3	1	1		
*	MN	103	103	103	103	103	103	DORCHESTER-TERRI	5	129	RENNILLE CO. PK.	477992	ACGI	MN76014	*82	50	75	1.4	1.0	1	1		
*	MN	103	103	103	103	103	103	LESUEUR	5	151	J HALGREEN	9034300	VILE	MN86011	WIND	*87	25	92	1.4	1	A		
*	MN	103	103	103	103	103	103	ESTHERVILLE	7	47	WEDGE NURSERY	469226	FRPE	MN82014	SDIN	*85	100	7.1	2.5	1	1		
*	MN	103	103	103	103	103	103	ESTHERVILLE	SL	7	47 WEDGE NURSERY	469226	FRPE	MN82014	SDIN	*86							
*	MN	103	103	103	103	103	103	ESTHERVILLE	SL	7	47 WEDGE NURSERY	477999	LOS180	MN82014	SDIN	*85							
*	MN	103	103	103	103	103	103	ESTHERVILLE	SL	7	47 WEDGE NURSERY	477999	LOS180	MN82014	SDIN	*86							
*	MN	103	103	103	103	103	103	ESTHERVILLE	SL	7	47 WEDGE NURSERY	478008	SYRE80	MN82014	SDIN	*85							
*	MN	103	103	103	103	103	103	ESTHERVILLE	SL	7	47 WEDGE NURSERY	478008	SYRE80	MN82014	SDIN	*86							
*	MN	103	103	103	103	103	103	ESTHERVILLE	SL	7	47 WEDGE NURSERY	477992	ACGI	MN85013	WIND	*85							
*	MN	105	105	105	105	105	105	MT CARROLL	SIL	7	109 MN DNR	477992	ACGI	MN85013	WIND	*86	50	100					
*	MN	105	105	105	105	105	105	MT CARROLL	SIL	7	109 MN DNR	476382	CEOC	MN85013	WIND	*85	60	50					
*	MN	105	105	105	105	105	105	MT CARROLL	SIL	7	109 MN DNR	476382	CEOC	MN85013	WIND	*86	60	15					
*	MN	105	105	105	105	105	105	MT CARROLL	SIL	7	109 MN DNR	9011850	GLS180	MN85013	WIND	*85	25	80					
*	MN	105	105	105	105	105	105	MT CARROLL	SIL	7	109 MN DNR	9011850	GLS180	MN85013	WIND	*86	25	75					
*	MN	103	103	103	103	103	103	WEBSTER	CL	7	147 STEELE CO SWCD	9006073	PRPAS	MN86010	WIND	*86	25	100	3.0	1.0	5	A	
*	MN	103	103	103	103	103	103	WEBSTER	CL	7	147 STEELE CO SWCD	9034900	VILE	MN86010	WIND	*86	10	90	1.3	*.5	3	A	
*	MN	105	105	105	105	105	105	FAYETTE	SIL	7	157 MN DNR	476382	CEOC	MN85014	WIND	*85	25	70	1.5	*.5	7	A	
*	MN	105	105	105	105	105	105	FAYETTE	SIL	7	157 MN DNR	476382	CEOC	MN85014	WIND	*86	25	0	0	*.9	9	A	
*	MN	105	105	105	105	105	105	FAYETTE	SIL	7	157 MN DNR	9011850	GLS180	MN85014	WIND	*85	125	90	1.5	*.5	7	A	
*	MN	105	105	105	105	105	105	FAYETTE	SIL	7	157 MN DNR	9011850	GLS180	MN85014	WIND	*86	125	20	.1	*.5	5	A	

A SUMMARY OF •CARJAN• GREEN ASH FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT AREA	NUM COOPERATOR	001	502	517	699	518	532	553	525	527	713	
					ACCN	FIELD	YR	NUM	SUR	FOL	FOL	WID	WDC	ADPT STAT	
*	MN	056	MAVIE	L	1	89	M	KNUTSON	469226	MN82008	SDIN	*85	57	2•5	1•0
*	MN	056	MAVIE	L	1	89	M	KNUTSON	469226	MN82008	SDIN	*86	37	•3	•1
*	MN	056	MAVIE	L	1	89	M	KNUTSON	469226	MN82008	SDIN	*86	7	3	1
*	MN	056	ROCKWELL-VALLERS	FSL	1	89	A	MUNDGAARD	469226	MN84004	WIND	A			
*	MN	056	ROCKWELL-VALLERS	FSL	1	89	A	MUNDGAARD	469226	MN84004	WIND	*85	87	2•0	•8
*	MN	056	ROCKWELL-VALLERS	FSL	1	89	A	MUNDGAARD	469226	MN84004	WIND	*85	70	2•8	1•0
*	MN	056	ARVESON	L	1	107	H	AAABY	469226	MN82007	SDIN	*85	5	3	1
*	MN	056	ARVESON	L	1	107	H	AAABY	469226	MN82007	SDIN	*85	90	•5	•3
*	MN	056	ARVESON	L	1	107	H	AAABY	469225	MN82007	SDIN	*86	90	•5	•3
*	MN	056	ROCKWELL-KRATKA	FSL	1	113	J	DAHLEN	469226	MN84002	WIND				
*	MN	056	SMILEY	SCL	1	113	P	BERGLAND	469226	MN84003	WIND				
*	MN	056	ROCKWELL-KRATKA	FSL	1	113	D	DAHLEN	469226	MN84002	WIND	*85	97	2•8	1•0
*	MN	056	SMILEY	SCL	1	113	P	BERGLAND	469225	MN84003	WIND	*85	91	2•3	•6
*	MN	056	SMILEY	SCL	1	113	P	BERGLAND	469226	MN84003	WIND	*85	100	4•0	1•0
*	MN	056	ROCKWELL-KRATKA	FSL	1	113	D	DAHLEN	469226	MN84002	WIND	*86	90	4•0	1•0
*	MN	056	BEARDEV	SICL	1	119	30B	ROSS	469226	MN82001	SDIN				
*	MN	056	BEARDEV	SICL	1	119	S	ANDERSON	469226	MN83001	SDIN				
*	MN	056	BEARDEV	SICL	1	119	S	ANDERSON	469226	MN83001	SDIN	*85	98	6•0	3•6
*	MN	056	BEARDEV	SICL	1	119	S	ANDERSON	469226	MN83001	SDIN	*85	95	3•0	1•0
*	MN	056	BEARDEV	SICL	1	119	S	ANDERSON	469226	MN83001	SDIN	*86	95	3•4	1•6
*	MN	056	BEARDEV	SICL	1	119	30B	ROSS	469226	MN82001	SDIN	*86	100	7•7	5•3
*	MN	056	WHEATVILLE	L	1	125	MN	WHEAT GROWERS ASS	469226	MN85020	WIND	*85	42	98	1•7
*	MN	056	WHEATVILLE	L	1	125	MN	WHEAT GROWERS ASS	469225	MN85020	WIND	*86	42	98	•7
*	MN	090	DULUTH	SIL	5	17	BARNUM	HIGH SCHOOL	469226	MN82016	WIND				
*	MN	090	DULUTH	SIL	3	17	BARNUM	HIGH SCHOOL	469226	MN82016	WIND	*85	12	•3	•2
*	MN	090	DULUTH	SIL	3	17	BARNUM	HIGH SCHOOL	469226	MN82016	WIND	*86	0		
*	MN	103	HUBBARD	FS	4	139	D	WAGNER	469226	MN86030	WIND	*86	25	92	1•2
*	MN	102A	YES	L	5	23	K	BEITO	469226	MN85007	WIND	*86	29	90	•1
*	MN	102A	BARNES-SINGSAAS	L	5	81	J	BEHNKE	469226	MN86003	WIND	*86	50	100	2•5
*	MN	102A	BARNES-SINGSAAS	L	5	151	F	DJLAN	469226	MN86006	WIND	*86	30	97	2•0
*	MN	103	FIELDONSDARFUR	L	5	173	R	SMITH	469225	MN85004	WIND	*86	25	98	3•5
*	MN	103	ESTHERVILLE	SL	6	13	L	LUNZ	469226	MN86005	WIND	*86	25	100	2•5
*	MN	103	ESTHERVILLE	SL	7	47	47	EDGE NURSERY	469226	MN82014	SDIN	*85	100	7•1	2•5
*	MN	103	ESTHERVILLE	SL	7	47	47	EDGE NURSERY	469226	MN82014	SDIN	*85	1	1	1
*	MN	103	ESTHERVILLE	SL	7	47	47	EDGE NURSERY	469226	MN82014	SDIN	*86			

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

Legend:

505 CNT NUM (FIPS County Code)

502 FIELD PLNT NO (Field planting number: state, year planted, sequence)

517 PURP (Purpose)

599 YR RC (Year of record)

518 NUM PLTS (Number of plants)

532 SUR PCT (Percent survival)

552 FOL HT (Height at end of season)

553 FOL WID (Crown width at end of season)

525 WDC (Weed competition)

627 ADPT (Adaptation to site)

713 STAT (Status: active, inactive, terminated)

A SUMMARY OF DAHE HACKBERRY FIELD PLANTINGS IN MINNESOTA
11/09/1987

ST	MLRA	SOIL SERIES	TEXT	AREA	NUM	COOPERATOR	001	502	517	518	532	552	553	525	527	713		
							ACC#	FIELD	YR	YR	SUR	FOL	WID	WDC	ADPT	STAT		
							NUMBER	PLNT	YR	PURP	RC	PCT	HT	WID	WDC	ADPT		
*	MN	056	3EARDEN	SICL	1	119	6	MCDONALD		476982	MN85015	WIND	*85	50	60	*8	*2	
*	MN	056	BEARDEN	SICL	1	119	6	MCDONALD		476982	MN85015	WIND	*86	50	97	102	*6	
*	MN	056	LOHNES	LS	1	119	LEE NURSERY		476982	MN86045	SDIN	*86	100	85	*2	*5	3	
*	MN	056	WEATVILLE	L	1	125	MN	WEAT GROWERS ASS		476982	MN85020	WIND	*85	40	83	101	*5	
*	MN	056	WEATVILLE	L	1	125	MN	WEAT GROWERS ASS		476982	MN85020	WIND	*85	40	50	101	*8	
*	MN	090	MENAHGA	LS	2	197	D	SIISH		476982	MN81006	WIND					1	
*	MN	090	MENAHGA	LS	2	197	D	SIISH		476982	MN81006	WIND	*85	80	100	*7	5	
*	MN	102	NUTLEY/HATTIE	C	2	149	C	ANDERSON		476982	MN85045	WIND	*85	99	10	100	*5	1
*	MN	102	NUTLEY/HATTIE	C	2	149	C	ANDERSON		476982	MN85045	WIND	*86	99	99	100	*5	1
*	MN	GRIMSTAD			2	149	C	ANDERSON		476982	MN85016	WIND	*85	50	5	204	*0	1
*	MN	GRIMSTAD			2	167	R	OUSE		476982	MN85016	WIND	*86	50	72	*8	*2	5
*	MN	091	HAYDEN	FSL	3	59	P	WALKER		476982	MN85005	WIND	*85	25	24	100	*3	3
*	MN	091	HAYDEN	FSL	3	59	P	WALKER		476982	MN85005	WIND	*86	25	63	*1	*1	1
*	MN	090	MORA	SL	3	55	R	VOGT		476982	MN85004	WIND	*85	50	90	*1	*1	3
*	MN	090	MORA	SL	3	65	R	VOGT		476982	MN85004	WIND	*86	50	18	*5	*1	3
*	MN	094	OMEGA	LS	3	115	D	LYSETH		476982	MN85006	WIND	*85	25	80	102	1	3
*	MN	094	OMEGA	LS	3	115	D	LYSETH		476982	MN85006	WIND	*86	25	25	63	*1	3
*	MN	102	AASTAD	CL	5	11	M	MILLS		476982	MN85007	WIND	*85	50	90	*1	*1	3
*	MN	102	AASTAD	CL	5	11	M	MILLS		476982	MN85007	WIND	*86	25	80	*3	*1	3
*	MN	102A	MCDONALDSVILLE	SICL	5	23	D	MOE		476982	MN85022	WIND	*85	25	12	*0	0	1
*	MN	102A	MCDONALDSVILLE	SICL	5	23	D	MOE		476982	MN85022	WIND	*86	25	95	*6	5	1
*	MN	103	WEBSTER	L	5	173	R	DAVES		476982	MN85017	WIND	*85	25	90	*2	*5	3
*	MN	103	WEBSTER	L	5	173	R	DAVES		476982	MN85017	WIND	*86	25	80	*3	*1	3
*	MN	103	TILFER	SICL	6	13	R	ANDERSON		476982	MN85011	WIND	*85	25	12	*0	0	1
*	MN	103	TILFER	SICL	5	13	R	ANDERSON		476982	MN85011	WIND	*86	25	95	*6	5	1
*	MN	103	WEBSTER	LESTER	SICL	5	13	DAVIS-RICHARDS FARMS		476982	MN85012	WIND	*85	25	97	108	105	3
*	MN	103	WEBSTER	LESTER	SICL	6	13	DAVIS-RICHARDS FARMS		476982	MN85012	WIND	*86	25	80	*3	*1	3
*	MN	103	NICOLLET	SICL	6	103	E	FREUNDL		476982	MN85018	WIND	*85	60	93	*5	*2	1
*	MN	103	NICOLLET	SICL	6	103	E	FREUNDL		476982	MN85018	WIND	*86	60	97	205	*5	3
*	MN	105	MT CARROLL	SIL	7	109	MN	DNR		476982	MN85013	WIND	*85	60	50	100	100	5
*	MN	105	MT CARROLL	SIL	7	109	MN	DNR		476982	MN85013	WIND	*86	60	15	7	7	1
*	MN	105	FAYETTE	SIL	7	157	MN	DNR		476982	MN85019	WIND	*85	70	105	*5	7	1
*	MN	105	FAYETTE	SIL	7	157	MN	DNR		476982	MN85014	WIND	*86	25	0	0	0	0

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

Legend:

- 505 CNT NUM (FIPS County Code)
- 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
- 517 PURP (Purpose)
- 599 YR RC (Year of record)
- 518 NUM PLTS (Number of plants)
- 532 SUR PCT (Percent survival)
- 552 FOL HT (Height at end of season)
- 553 FOL WID (Crown width at end of season)
- 525 WDC (Weed competition)
- 627 ADPT (Adaptation to site)
- 713 STAT (Status: active, inactive, terminated)

A. SUMMARY OF NJ-1873 (9011850) HONEYLOCUST IN FIELD PLANTINGS IN MINNESOTA
11/12/1987

ST	MLRA	SOIL SERIES	TEXT AREA	NUM COOPERATOR	509	711	505	503	001	502	517	699	518	532	552	553	525	527	713
					SOIL ADY	CVI	PLNT	NO PURP	RC	PLTS	PCT	HT	SUR FOL	FOL	WID	WDC	ADPT	STAT	
*	MN	057	NEBISH	L	1	29	0	THOMPSON	9011850	MN85003	WIND	*85	50	93	1.2	.2	5	3	T
*	MN	057	NEBISH	L	1	29	0	THOMPSON	9011850	MN85003	WIND	*85	50	0	5	5	5	9	T
*	MN	091	NEBISH	FSL	1	57	E	HOEFS	9011850	MN85001	WIND	*85	50	98	*9	*5	3	5	A
*	MN	091	NEBISH	FSL	1	57	E	HOEFS	9011850	MN85001	WIND	*86	50	96	*7	*1	5	5	A
*	MN	056	ULEV	FSL	1	107	R	TJON	9011850	MN85002	WIND	*85	50	100	1.5	*9	7	3	A
*	MN	056	ULEV	FSL	1	107	R	TJON	9011850	MN85002	WIND	*86	50	90	1.0	*5	3	3	A
*	MN	091	HAYDEN	FSL	3	59	P	WALKER	9011850	MN85005	WIND	*85	25	92	1.1	*4	3	3	A
*	MN	091	HAYDEN	FSL	3	59	P	WALKER	9011850	MN85005	WIND	*86	25	50	*2	*1	7	3	A
*	MN	090	MORA	SL	3	65	R	VOGT	9011850	MN85004	WIND	*85	50	92	*1	*4	3	3	A
*	MN	090	MORA	SL	3	55	R	VOGT	9011850	MN85004	WIND	*86	50	86	1.0	*5	3	3	A
*	MN	094	OMEGA	LS	3	115	0	LYSETH	9011850	MN85006	WIND	*85	75	100	1.0	1	1	1	A
*	MN	094	OMEGA	LS	3	115	D	LYSETH	9011850	MN85006	WIND	*86	75	100	*2	*1	5	3	A
*	MN	102	AASTAD	CL	5	11	M	MILLS	9011850	MN85007	WIND	*85	50	95	*2	*7	1	3	A
*	MN	102	AASTAD	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	80	2.5	*5	1	3	A
*	MN	103	CLARION	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	103	CLARION	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*86	50	100	2.5	1.0	5	3	A
*	MN	102	BARNES-SINGSAAS	5	81	J	BEHNKE	9011850	MN85009	WIND	*85	26	96	1.0	*2	1	3	A	
*	MN	102	BARNES-SINGSAAS	CL	5	63	N	HILDEBRANDT	9011850	MN85007	WIND	*86	50	80	2.5	*5	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*85	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	80	2.5	*5	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50	100	2.5	*5	3	1	A
*	MN	102	BARNES-SINGSAAS	CL	5	11	M	MILLS	9011850	MN85007	WIND	*86	50	95	*2	*7	1	3	A
*	MN	102	BARNES-SINGSAAS	L	5	63	N	HILDEBRANDT	9011850	MN85010	WIND	*85	50						

A SUMMARY OF NJ-11 (477978) AMUR HONEYJACK FIELD PLANTINGS IN MINNESOTA
11/16/1987

ST	MLRA	SOIL SERIES	TEXT AREA	NUM COOPERATOR	504	506	507	509	711	505	503	001	502	517	697	518	532	552	553	525	527	713
					SOIL ADAPT	CNT	CNT	SOIL ADAPT	CNT	SOIL ADAPT	CNT	SOIL ADAPT	CNT	SOIL ADAPT	CNT	SOIL ADAPT	CNT	SOIL ADAPT	CNT	SOIL ADAPT	CNT	SOIL ADAPT
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	85	50	90	•3	•2	1	3	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	84	50	90	•2	•2	3	7	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	85	98	48	28	25	3	3	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	85	50	98	48	25	3	3	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	85	50	98	48	25	3	3	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	85	50	98	48	25	3	3	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	85	50	98	48	25	3	3	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	85	50	98	48	25	3	3	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	86	50	90	•4	•3	3	3	A			
***	YN	056	LOHVES	LS	1	119	LEE	NURSERY	477998	MN83004	SDIN	86	50	90	•4	•3	3	3	A			

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

Legend:

- 505 CNT NUM (FIPS County Code)
- 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
- 517 PURP (Purpose)
- 599 YR RC (Year of record)
- 518 NUM PLTS (Number of plants)
- 532 SUR PCT (Percent survival)
- 552 FOL HT (Height at end of season)
- 553 FOL WID (Crown width at end of season)
- 525 WDC (Weed competition)
- 627 ADPT (Adaptation to site)
- 713 STAT (Status: active, inactive, terminated)

A SUMMARY OF NJ-52 (47792) AMJR MAPLE FIELD PLANTINGS IN MINNESOTA
11/20/1987

ST	MLRA	SOIL SERIES	TEXT AREA	CNT	SOIL	ACM	CNT	SOIL	ACCN	FIELD	501	502	517	699	518	532	553	525	527	713	
*	*	*	*	*	*	*	*	*	*	NUMBER	PLNT	VC	PURP	RC	PLTS	PCT	HT	WID	WDC	ADPT	STAT
*	4N 056	JHEATVILLE	L	1	125	4N JHEAT	GROWERS ASS	477392	MN85020	WIND	*85	51	100	1.8	1.7	5	1	A			
*	MN 056	JHEATVILLE	L	1	125	MN JHEAT	GROWERS ASS	477392	MN85020	WIND	*86	51	93	2.5	2.5	5	3	A			
*	NN 088	NYMORE	LS	2	159	R LAGESON		477392	4N74025	WIND	*78	10	29	*4	*4			I			
*	NN 056	DORAN	L	2	167	L PJPPEL		477392	MN85047	WIND	*85	50	95	*6	*2	1	1	A			
*	NN 056	DORAN	L	2	167	L PJPPEL		477392	4N85047	WIND	*86	50	68	2.2	1.9	3	5	A			
*	NN 090	MORA	SL	3	55	R VOGT		477392	MN85004	WIND	*85	50	96	*1	*4	3	3	A			
*	NN 090	MORA	SL	3	65	R VOGT		477392	MN85004	WIND	*86	50	94	2.4	1.5	3	3	A			
*	NN 102	AASTAD	CL	5	11	M MILLS		477392	MN85007	WIND	*85	25	95	2.1	*2	1	3	A			
*	NN 102	AASTAD	CL	5	11	M MILLS		477392	4N85007	WIND	*86	25	0			1	1	A			
*	NN 102A	WAU3AY	SICL	5	23	C CHIPPEWA COUNTY		477392	MN85021	WIND	*85	25	100	1.2	*5	3	3	A			
*	NN 102A	WAU3AY	SICL	5	23	C CHIPPEWA COUNTY		477392	MN85021	WIND	*86	25	80	2.0	2.0	7	3	A			
*	NN 103	WALDORF	SIC	5	53	SANDY POINT CO.	PARK	477392	MN76012	WIND	*77	25	80				I				
*	NN 103	WALDORF	SIC	5	53	SANDY POINT CO.	PARK	477392	MN76012	WIND	*78	25	70				I				
*	MN 103	WALDORF	SIC	5	53	SANDY POINT CO.	PARK	477392	MN76012	WIND	*79	25	70				I				
*	NN 103	WALDORF	SIC	5	53	SANDY POINT CO.	PARK	477392	MN76012	WIND	*81	25	72	*9	*7	3	3	A			
*	NN 103	WALDORF	SIC	5	63	SANDY POINT CO.	PARK	477392	MN76012	WIND	*82	25	64	1.0	.8	1	3	A			
*	NN 103	FAIRHAVEN	SIL	5	105	LAKE BELLA		477992	MN74021	*74	26	60									
*	NN 103	FAIRHAVEN	SIL	5	105	LAKE BELLA		477992	MN74021	*75	25	23									
*	NN 103	FAIRHAVEN	SIL	5	105	LAKE BELLA		477992	MN74021	*76	26	12									
*	NN 103	WEBSTER LESTER	SICL	6	13	DAVIS-RICHARDS FARMS		477992	MN85012	WIND	*83	25	80	1.3	1.3	3	3	A			
*	NN 103	WEBSTER LESTER	SICL	6	13	DAVIS-RICHARDS FARMS		477992	MN85012	WIND	*86	25	0	2.0	2.0	5	5	A			
*	NN	ESTHerville	SL	6	67	J GUSTAFSON		477992	MN85019	WLDF	*85	50	64	*1	*3	9	3	A			
*	NN	ESTHerville	SL	6	67	J GUSTAFSON		477992	MN85019	WLDF	*86	50	90	*1	*5	9	3	A			
*	NN 103	DORCHESTER-TERRI	SL	6	129	RENVILLE CO. PK.		477992	MN76014	*81	50	1.0	*8	3	1	1					
*	NN 103	DORCHESTER-TERRI	SL	6	129	RENVILLE CO. PK.		477992	MN76014	*82	50	75	1.4	1.0	1	1					
*	NN 105	MT CARRIALL	SIL	7	109	MN DNR		477992	MN85013	WIND	*85	50	90	7							
*	NN 105	MT CARRIALL	SIL	7	109	MN DNR		477992	MN85013	WIND	*86	50	100	5							

RATING SYSTEM 1=EXCELLENT 3=GOOD 5=FAIR 7=POOR 9=VERY POOR

Legend:

- 505 CNT NUM (FIPS County Code)
- 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
- 517 PURP (Purpose)
- 599 YR RC (Year of record)
- 518 NUM PLTS (Number of plants)
- 532 SUR PCT (Percent survival)
- 552 FOL HT (Height at end of season)
- 525 WDC (Weed competition)
- 627 ADPT (Adaptation to site)
- 713 STAT (status: active, inactive, terminated)

A SUMMARY OF 97-14 HARBIN PEAR (PYRUS JESSORENSIS) FIELD PLANTINGS IN MINNESOTA
11/30/1987

ST	MLRA	SOIL SERIES	TEXT AREA	NUM	COOPERATOR	SL	1	107	3	SYVERSON	001	502	517	699	518	532	552	553	525	527	713	
						SICL	1	107	J	PETERSON	ACCN	FIELD	YR	NUM	SUR	FOL	FOL	FOL	WDC	ADPT	STAT	
*	MN	056	ULEV			SICL	1	107	J	PETERSON	478004	MN82003	WIND									A
*	MN	056	BEARDEV			L	1	107	R	MILLER	478004	MN82006	WIND									A
*	MN	056	BORUP			SIL	1	107	K	CHISHOLM	478004	MN82005	WIND									A
*	MN	056	VALLERS			SICL	1	107	J	PETERSON	478004	MN82004	WIND	*85								A
*	MN	056	BEARDEV			SIL	1	107	K	CHISHOLM	478004	MN82004	WIND	*85								A
*	MN	056	VALLERS			L	1	107	R	MILLER	478004	MN82005	WIND	*85								A
*	MN	056	BORUP			SL	1	107	B	SYVERSON	478004	MN82003	WIND	*85								A
*	MN	056	ULEV			SICL	1	107	J	PETERSON	478004	MN82005	WIND	*85								A
*	MN	056	BEARDEV			SL	1	107	B	SYVERSON	478004	MN82005	WIND	*85								A
*	MN	056	ULEV			SIL	1	107	K	CHISHOLM	478004	MN82004	WIND	*85								A
*	MN	056	VALLERS			L	1	107	R	MILLER	478004	MN82004	WIND	*85								A
*	MN	056	BORUP			LS	1	119	LEE	NURSERY	478004	MN82005	WIND	*85								A
*	MN	057	LOHVES			LS	1	119	LEE	NURSERY	478004	MN82002	SDIN	*85								A
*	MN	057	LOHVES			LS	1	119	LEE	NURSERY	478004	MN82002	SDIN	*85								A
*	MN	057	LOHVES			LS	1	119	LEE	NURSERY	478004	MN82004	WIND	*85								A
*	MN	090	MENAHGA			LS	2	97	D	STISH	478004	MN81006	WIND								A	
*	MN	090	MENAHGA			LS	2	97	J	STISH	478004	MN81005	WIND	*85								A
*	MN	090	DULUTH			SIL	3	17	3	BARNUM HIGH SCHOOL	478004	MN82016	WIND								A	
*	MN	090	DULUTH			SIL	3	17	3	BARNUM HIGH SCHOOL	478004	MN82016	WIND	*85								A
*	MN	090	DULUTH			SIL	3	17	3	BARNUM HIGH SCHOOL	478004	MN82016	WIND	*85								A
*	MN	090	DULUTH			SIL	3	17	3	BARNUM HIGH SCHOOL	478004	MN82016	WIND	*85								A
										RATING SYSTEM	1=EXCELLENT	3=GOOD	5=FAIR	7=POOR	9=VERY POOR							

Legend:
 505 CNT NUM (FIPS County Code)
 502 FIELD PLNT NO (Field planting number: state, year planted, sequence)
 517 PURP (Purpose)
 599 YR RC (Year of record)
 518 NUM PLTS (Number of plants)
 532 SUR PCT (Percent survival)
 552 FOL HT (Height at end of season)
 553 FOL WID (Crown width at end of season)
 525 WDC (Weed competition)
 627 ADPT (Adaptation to site)
 713 STAT (Status: active, inactive, terminated)

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Long Range Plan for Field Plantings

Species: Prunus padus var. commutata Dipp.

Common name: European birdcherry, mayday.

Accession number: SD-131, 6073T.

Purpose of field plantings: Evaluated this for use as a medium tree component of multiple row field and farmstead shelterbelts, single row field windbreaks, wildlife plantings and recreational area developments. Provides food and nesting sites for song birds and other wildlife. Non-suckering habit should be advantageous as a substitute for chokecherry.

Literature review and background information: Mayday is native to Europe and Asia. This shrubby, rounded tree may reach a height of 30 feet. Nonpersistant fruit is small, black, about 1/4 inch across, ripening in July. Branches are low and ascending. One of the first trees to leaf out in the spring. Black knot disease is considered a limiting factor for the species, especially in Minnesota. Root stocks are compatible with chokecherry scion wood. It is hardy in the Dakotas and is non-suckering.

Seed of SD-131 was collected in 1964 from one or more trees on the Oscar Hobbie farm three miles south of the Brookings County line in Moody County near Flandreau, South Dakota. This 1952 planting was established with stock from the Gurney Nursery, Yankton, South Dakota. This and other similar plantings in South Dakota were thought to trace to early introductions by J. L. Budd, Iowa State College, from eastern Siberia via the Imperial Botanical Gardens of Russia. It has performed well in Field Evaluation Plantings in North Dakota, South Dakota and Minnesota.

Duration of field plantings: 10 years.

Standard of comparison: common chokecherry.

Approximate size of field plantings: Minimum of 25 trees per entry.

Location of field plantings: All MLRAS in North Dakota, South Dakota and Minnesota. Selected sites in Iowa, Wisconsin, Nebraska, Montana, Kansas and Wyoming.

Site selection: Recommended for planting on the soils in windbreak suitability groups 1-6. Performs best on moist, moderately well drained to well drained clay loams or sandy soils.

Evaluations: Complete evaluations as required by PMS on Form SCS-ECS-10, Evaluation of Woody Field Plantings.

Summary results: Results will be summarized when trials are complete.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Long Range Plan for Field Plantings

Species: *Helianthus maximiliani* Shrad.

Common name: maximilian sunflower.

Accession number: ND-3959, 35964T.

Purpose of field plantings: Evaluate this selection for use in wildlife habitat plantings, range seedings, surface mine reclamation or beautification of transportation corridors and recreational area developments. Stiff upright stems may have potential as vegetative wind barriers. A highly palatable and nutritious livestock forage. Seeds are heavily utilized by birds and other wildlife.

Literature review and background information: Maximilian sunflower is a native, perennial, warm season forb. It grows upright singly or in tight colonies, spreading by seed and heavy rootstalks. Stem heights reach 3-6 feet with conspicuous yellow flower clusters arising on short flower stalks from the leaf axils. Flowers may be present from July through September. It is found in the plains from Saskatchewan and Manitoba south to Missouri and Texas and in some eastern states. Although more abundant in eastern Dakotas than western, it is found along streams, near springs and wet areas in the west. There are approximately 225,000 seeds/pound.

The origin of this accession is from native sites in Grant, LaMoure and Cavalier Counties, North Dakota; Marshall County, South Dakota and Big Stone County, Minnesota. ND-3959 is a composite of five accessions selected on the basis of four years favorable performance in comparison to 52 other accessions from the Dakotas and Minnesota. Criteria for selections included maturity, plant size, vigor, leafiness, number of stems and susceptibility to sunflower rust. Flowering and maturity averages 2 weeks earlier than selections from southern and central South Dakota. Height is variable but may exceed 4.5 feet under optimum conditions or cultivations.

Duration of field plantings: 4 to 5 years.

Standard of comparison: 'Prairie Gold' maximilian sunflower.

Approximate size of field plantings: Minimum size for range and pasture plantings is five acres and one-half acre for critical area, wildlife, roadside and similar plantings.

Location of field plantings: All MLRAS in North Dakota, MLRAS 58D, 63A (northern half) in South Dakota, MLRAS 56, 57, 88, 90, 91, 92, 93, 94A, and 94B in Minnesota.

Site selection: Maximilian sunflowers prefer moist sites and heavier soils, particularly overflow areas, swales, streambanks, ravines and roadside ditches. Commonly associated with big bluestem communities.

Evaluations: Complete evaluations as required by PMS on Form SCS-ECS-11, Evaluation of Herbaceous Field Plantings.

Summary results: Results will be summarized when trials are complete.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Long Range Plan for Field Plantings

Species: *Helianthus maximiliani* Shrad.

Common name: maximilian sunflower.

Accession number: ND-3651, 8065T.

Purpose of field plantings: Evaluate this selection for use in wildlife habitat plantings, range seedings, surface mine reclamation or beautification of transportation corridors and recreational area developments. Stiff upright stems may have potential as vegetative wind barriers. A highly palatable and nutritious livestock forage. Seeds are heavily utilized by birds and other wildlife.

Literature review and background information: Maximilian sunflower is a native, perennial, warm season forb. It grows upright singly or in tight colonies, spreading by seed and heavy rootstalks. Stem heights reach 3-6 feet with conspicuous yellow flower clusters arising on short flower stalks from the leaf axils. Flowers may be present from July through September. It is found on the plains from Saskatchewan and Manitoba south to Missouri and Texas and in some eastern states. Although more abundant in Minnesota and the eastern Dakotas, it is found along streams, near springs and wet areas in the western Dakotas. There are approximately 225,000 seeds/pound.

The origin of this accession is from a silty overflow site in Hughes County, South Dakota. Selected on favorable performance in comparison to 52 other accessions collected in the Dakotas and Minnesota. Criteria for selection included maturity, plant size, vigor, leafiness, number of stems and susceptibility to sunflower rust. Flowering and maturity averages 2 weeks later than selections from North Dakota. Height exceeded 6 feet under cultivation.

Duration of field plantings: 4 to 5 years.

Standard of comparison: 'Prairie Gold' maximilian sunflower.

Approximate size of field plantings: Minimum size for range and pasture plantings is five acres and one-half acre for critical area, wildlife, roadside and similar plantings.

Location of field plantings: All MLRAS in South Dakota; MLRAS 90, 91, 94, 102A, 102B, 103, 104, and 105 in Minnesota; MLRAS 54,

53B (southern half), 55B (southern half), and 56 (southern half) in North Dakota.

Site selection: Prefers deep, fertile lowland, moist sites. Particularly overflow areas, swales, streambanks, ravines and roadside ditches. Commonly associated with big bluestem communities.

Evaluations: Complete evaluations as required by PMS on Form SCS-ECS-11, Evaluation of Herbaceous Field Plantings.

Summary results: Results will be summarized when trials are complete.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Long Range Plan for Field Plantings

Species: Elymus giganteus Vahl.

Common Name: mammoth wildrye

Accession Number: ND-691, PI-313965

Purpose of Field Plantings: This selection will be evaluated for use as vegetative barriers or windbreaks. Course stem and foliage remain upright in winter and may also prove useful for wildlife food and cover. Its stout creeping habit has potential for stabilizing sand or critical areas.

Literature Review and Background Information: Mammoth wildrye is a tall course, introduced perennial grass, spreading from stout, vigorous rhizomes. Sessile spikelets make up a long dense spike supported by a thick, stiff culm. It is considered moderately palatable to grazing animals. This species can vary in growth from short, slender stemmed plants to thick robust plants up to 6 feet tall depending on moisture. Occasionally, it is grown as an ornamental. It is native to Siberia.

Increase of ND-691 was initiated from vegetative plugs planted in the spring of 1981 after 3 years of initial evaluation. This selection was first received in 1971 from Plant Introduction Station 59, Pullman, Washington which obtained the seed from Russia. This species appears adapted to the cold and droughty conditions of North Dakota. Insect and disease problems appear slight.

Duration of Field Plantings: 4 to 5 years.

Standard of Comparison: Volga mammoth wildrye, and T-16187 mammoth wildrye.

Approximate Size of Field Plantings: Minimum size for pasture is five acres and one half acre for critical area, wildlife, roadside and similar plantings.

Location of Field Plantings: all MLRAS in North Dakota, South Dakota, and Minnesota. Selected sites in Montana, Wyoming, Nebraska, and Kansas.

Site Selection: Adapted to deep sands, sandy loam, droughty porous soil (not especially adapted to gravels). Has exhibited moderate salt tolerance in some clayey saline soils.

Evaluation: Complete evaluations as required by PMS on SCS-ECS-11, Evaluation of Herbaceous Field Plantings.

Summary of Results: Results will be summarized when trials are complete.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Long Range Plan for Field Plantings

Species: Gleditsia triacanthos L.

Common name: Honeylocust.

Accession number: ND-1879, MDN-10435, 11850T.

Purpose of field plantings: Evaluate this selection for use as a tall or medium tree component of multiple row field and farmstead windbreaks and recreational area developments. It also has potential for wildlife habitat and natural area plantings.

Literature review and background information: Honeylocust is a medium to tall, fast growing, drought resistant tree (18-50 feet). It is adapted to a wide range of soils and can withstand alkaline soils. This species is noted for its zigzag twigs, large 2 to 4 inch thorns and fine textured compound leaves. Its fruit is a large bean shaped pod. Selections can be obtained which are thornless. Winter injury is common in the central and northern areas of South Dakota and all of North Dakota on seedlings grown from poorly adapted seed sources.

ND-1879 is a source selection based on 45 years of performance at the USDA, ARS Station, Mandan, North Dakota and comparison with other locally tested accessions, this accession differs morphologically from common honeylocust. Branches of the parent trees are nearly thornless. The leaflets are slightly smaller, less ellipic and rounded. It appears more winter hardy in North Dakota and South Dakota than seed sources originating from the nearest native sites in northeastern South Dakota and northern Minnesota. Has performed well in most Field Evaluation Plantings in North Dakota, South Dakota and Minnesota.

Duration of field plantings: 10 years.

Standard of comparison: common honeylocust, green ash, manchurian crabapple, Russian olive.

Approximate size of field plantings: Minimum of 25 trees per entry.

Location of field plantings: All MLRAS in South Dakota; MLRAS 53B, 54, 55B, 56 (southern half), 58C; in North Dakota; MLRAS 56 (southern half), 57, 88, 90, 91, 94, 102A, 102B, 103, 104, and 105 in Minnesota. Selected sites in Nebraska, Kansas, Wyoming and Montana.

Site selection: Adapted to moist, well drained bottomlands and limestone soils. Tolerates drought, high PH and salt.

Evaluations: Complete evaluations as required by PMS on Form SCS-ECS-10, Evaluation of Woody Field Plantings.

Summary results: Results will be summarized when trials are complete.

MINNESOTA SEED INCREASE AND PRODUCTION - 1986

Area	Field Office	Cooperator, Address	Species	Acres & Yr. Pltd.	Quantity	Estimated \$ Value
01	McIntosh	Paul Kaste Fertile, MN (218-945-6738)	'Lathco' flat pea	15 (1981)	8900	17,800
		NDG-4 big bluestem	10 (1983) 10 (1986)	2400 0	28,800	
		NDG-965-98 switchgrass	16 (1986)	0	32,000	
		'Emerald' crownvetch	23.5 (1980)	8000	32,000	
		'Tomahawk' indiangrass	10 (1986)	0	0	
		'Midwest' manchurian crabapple	(1983)	3900	858	
		'Cardan' green ash (sel. seed class)	(1983)	0	0	
		'Imperial' Carolina poplar	(1980)	0	0	
		'Oahe' hackberry		0	0	
		NDG-965-98 switchgrass 'Forestburg' switchgrass	20 (1980) 20 (1980)	0 0	0	
		NDG-965-98 switchgrass 'Forestburg' switchgrass	20 (1981) 20 (1981)	0 0	0	
		NDG-965-98 switchgrass NDG-965-98 switchgrass 'Forestburg' switchgrass 'Tomahawk' indiangrass	10 (1982) 60 (1986) 13 (1985) 7 (1985)	4710 0 2308 226	47,100	
		NDG-965-98 switchgrass 'Forestburg' switchgrass 'Tomahawk' indiangrass 'Bonilla' big bluestem	20 (1982) 10 (1986) 10 (1983)	396 0 768	3,960	
		NDG-965-98 switchgrass 'Forestburg' switchgrass 'Tomahawk' big bluestem	6 (1978) 10 (1986)	0 0	0	
		'Forestburg' switchgrass	8 (1986)	0	0	
		A. Larson				
		Schumacher's Berry Farm RR 2, Box 10 Heron Lake, MN (507-793-2288)	'Rem-Red' amur honeysuckle Midwest crabapple 'Scarlet' mongolian cherry			
		Lakefield			0	
02	Detroit Lakes	USDI, FWS (218-847-4431)				
		Fergus Falls	USDI, FWS (218-739-2291)			
		Moorhead	Wendell Olson Hawley, MN (218-937-5639)			
		Clarkfield	L. Denekamp			
		Morris	USDI, FWS, Morris, MN (612-589-1001)			

MINNESOTA SEED INCREASE AND PRODUCTION - 1986

